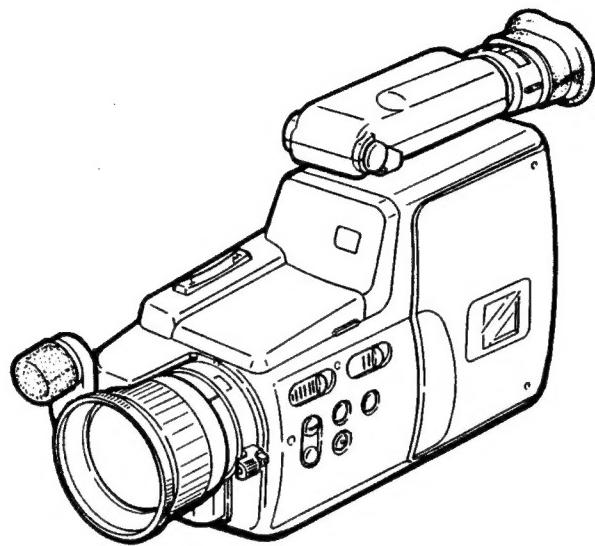


SANYO

Service Manual

8 mm Camcorder

VEM-S1P



Specifications

Video recording system	Rotating 4-head helical-scan FM, color under system	Power supply voltage	Battery holder input 6V/7.5V/9V
Audio recording system	Rotating head FM system	Power consumption	6.4W during camera recording
Video signals	PAL color, CCIR		
Cassette type	8 mm video tape cassette	Operation temperature range	0°C ~ +40°C (32°F ~104°F)
Tape speed	20.051 mm/sec	Storage temperature range	-20°C ~ +60°C (-4°F ~ +140°F)
Recording/playback time	90 minutes (P5-90 cassette)	External dimensions	99×157×255 mm (W×H×D)
Fast forward/rewind time	Approx. 5 minutes (P5-90 cassette)	Weight	Approx. 0.9 kg. (not including battery pack and cassette)
Pickup element	CCD solid-state type	Microphone	Electret condenser type (unidirectional)
Viewfinder	Electronic (0.7 inch type, black and white)	AUDIO + VIDEO OUT terminal	Video output 1Vp-p, 75Ω unbalanced, negative sync
Lens	Electro-powered 6X zoom lens $f = 12 \sim 72 \text{ mm}$ F1.6 Close-up function (18 mm ~ 1.2 m) Automatic focus Filter diameter 49 mm		Audio output -6dBs, 2.2kΩ or less
White balance adjustment	Automatic	Microphone jack	Mini jack, -64dBs For low-impedance microphone
Minimum subject illumination	7 lux		
Subject illumination range	7 lux ~ 100,000 lux		
Recommended subject illumination	300 lux or more		

PRODUCTION CODE No.

- 126 008 02 (G)
- 126 008 09 (SW)
- 126 008 12 (SP)
- 126 008 10 (E)
- 126 008 13 (A)
- 126 008 11 (ME)

• Specifications and external appearance are subject to change without notice.

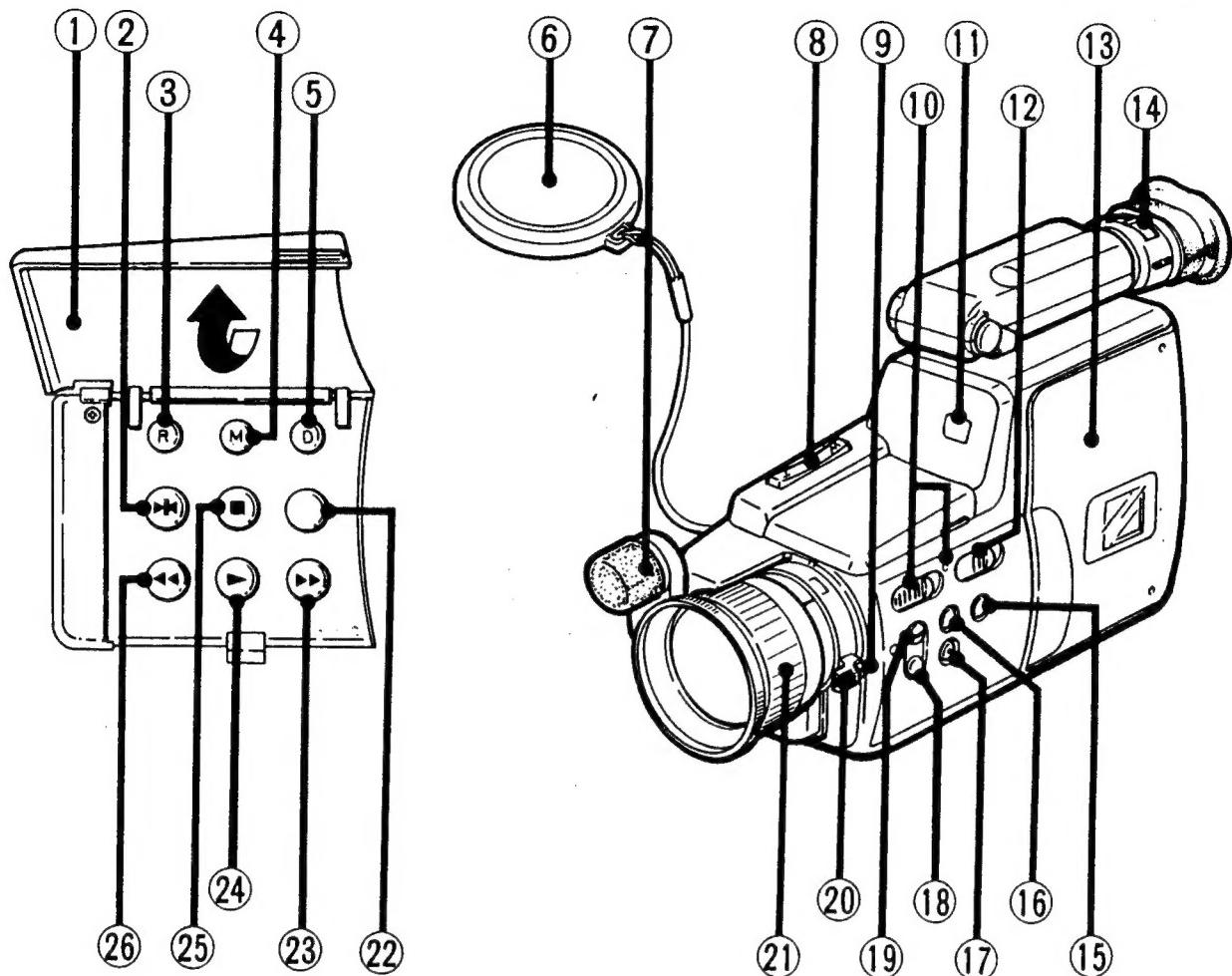
ES1P/G, SW, SP, E, A, ME

REFERENCE NO. WM-550033

TABLE OF CONTENTS

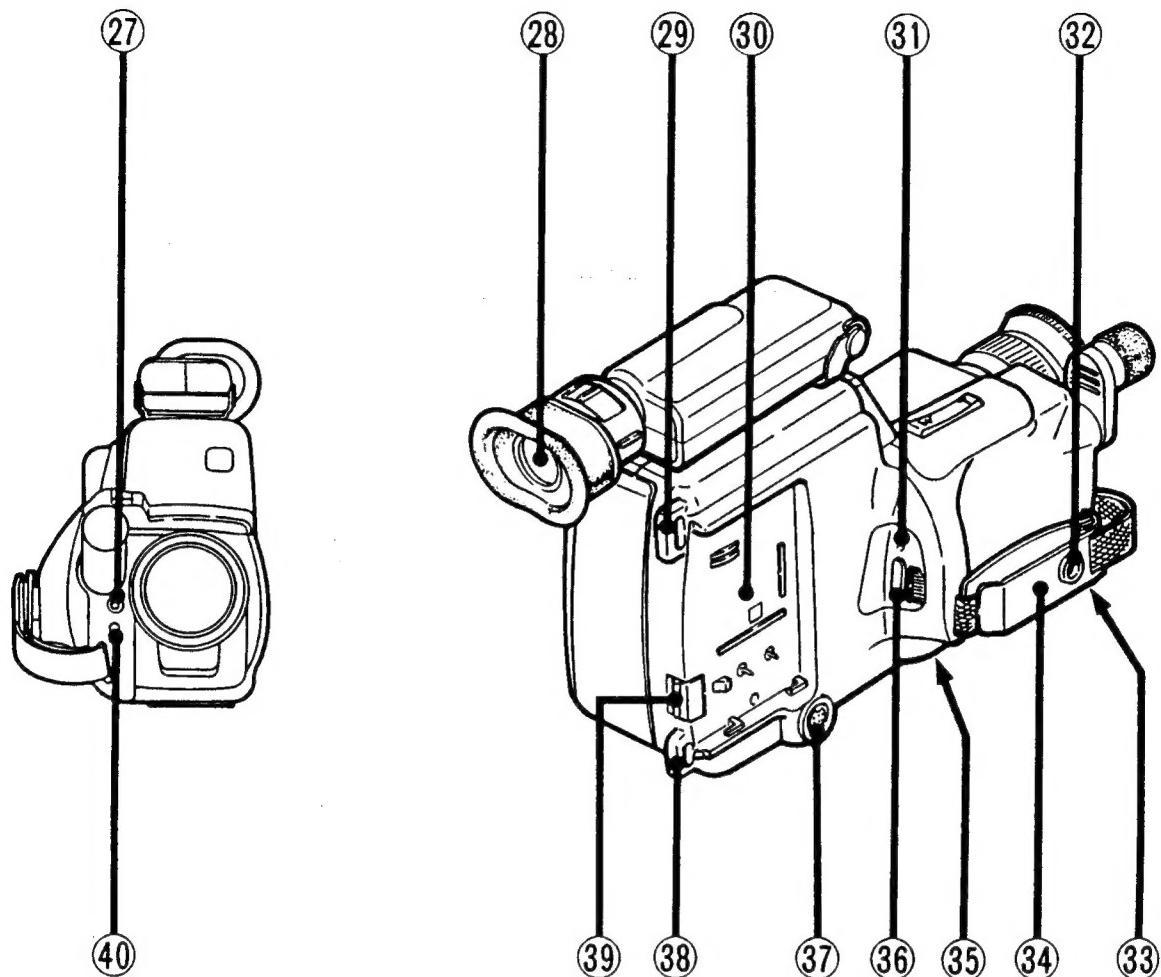
1. PARTS NAME	1
2. REMOVAL PROCEDURE	
2-1. Removing Cassette Cover and Left Cabinet	3
2-2. Removing Operation Panel, SY1 and TC1 PC Boards	3
2-3. Removing Viewfinder	4
2-4. Removing Camera Block	4
2-5. Removing VTR Deck and Right Cabinet	5
2-6. Removing VD1, and VP1 PC Boards	5
3. DIAGRAMS	
3-1. PCB Location	6
3-2. Camera Block (1)	7
3-3. Camera Block (2)	10
3-4. Video Block	13
3-5. Servo/System Control Block	17
3-6. Audio Block	19
3-7. Audio Level Block	20
3-8. Viewfinder Block	21
4. ADJUSTMENTS	
1. Camera Block	24
2. Mechanical	30
3. Video Block	63
4. FVF Block	74
5. TP and SVR Location	76

PARTS NAME



No.	Name
①	Operation cover
②	STILL button
③	RESET button
④	MEMORY button
⑤	DATE/TIME ADJ button
⑥	Lens cap
⑦	Microphone
⑧	Power zoom button
⑨	MACRO SET button
⑩	POWER switch and lamp
⑪	WHITE SENSOR
⑫	EJECT switch
⑬	Cassette holder

No.	Name
(14)	Eyesight compensation lever
(15)	DATE/TIME button
(16)	HIGH SPEED SHUTTER button
(17)	FADE button
(18)	FOCUS REV button
(19)	FOCUS switch
(20)	Zoom lever
(21)	Focus ring
(22)	REC button
(23)	FF button
(24)	PLAY button
(25)	STOP button
(26)	REW button



No.	Name
27	EXT. MIC jack
28	Viewfinder
29	Shoulder belt hook
30	Battery holder
31	REC/PAUSE lamp
32	Lens cap snap
33	Lithium battery cover

No.	Name
34	Grip belt
35	Tripod screw mount
36	REC START/STOP button
37	AUDIO • VIDEO OUT terminal
38	Shoulder belt hook
39	Battery eject lever
40	REC/PAUSE lamp

2. REMOVAL PROCEDURE

2-1. Cassette Cover and Left Cabinet

- 1) Remove screws ① (2 pcs). Slide the cassette cover ② out in the direction of the arrow and remove it.
- 2) Remove screw ③ securing operation panel.
- 3) Remove screws ④ (5 pcs) and ⑤. Loosen through about one turn the remaining 2 screws that secure the viewfinder and remove the left cabinet ⑥.

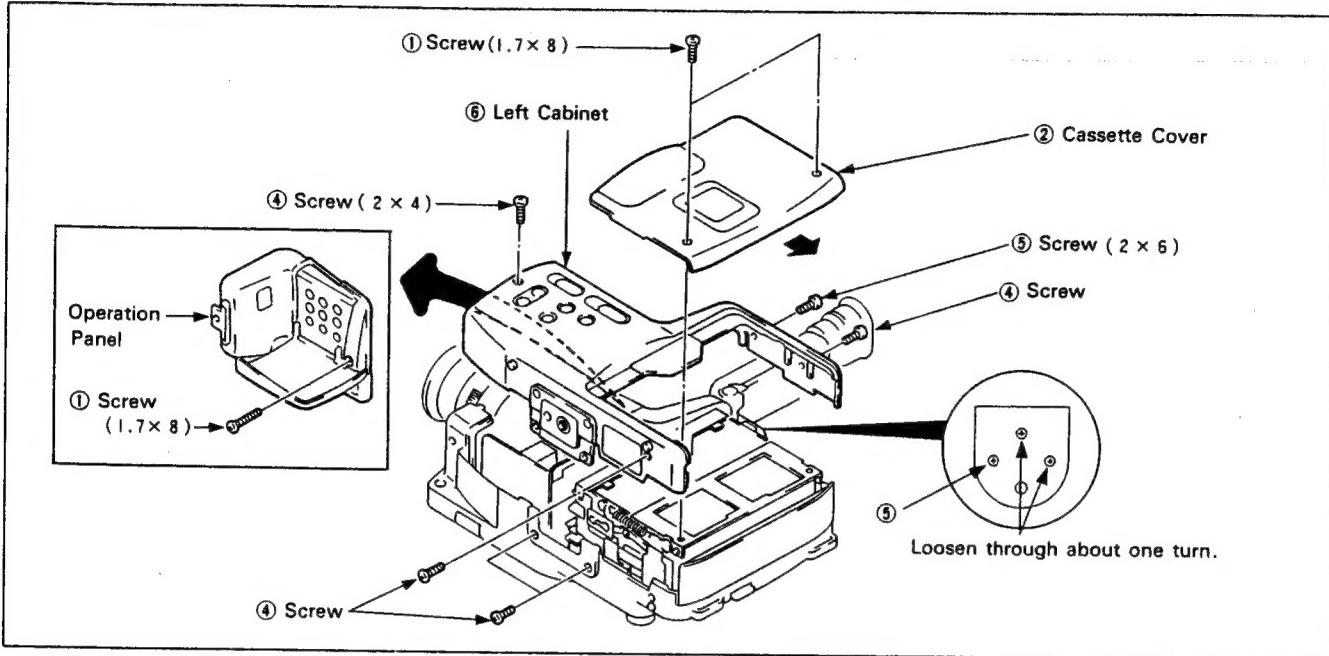


Fig. 2-1.

2-2. Removing Operation Panel and SY1 and TC1 Boards

- 1) Remove screw ①. Remove the operation panel ② by sliding in the direction of the arrow.
- 2) Remove screw ③ then SY1 board ④
- 3) Remove connectors ⑤ and ⑥ from SY1 boards.
- 4) Remove screws ⑦ and ⑧ .Remove the TC1 board ⑨.

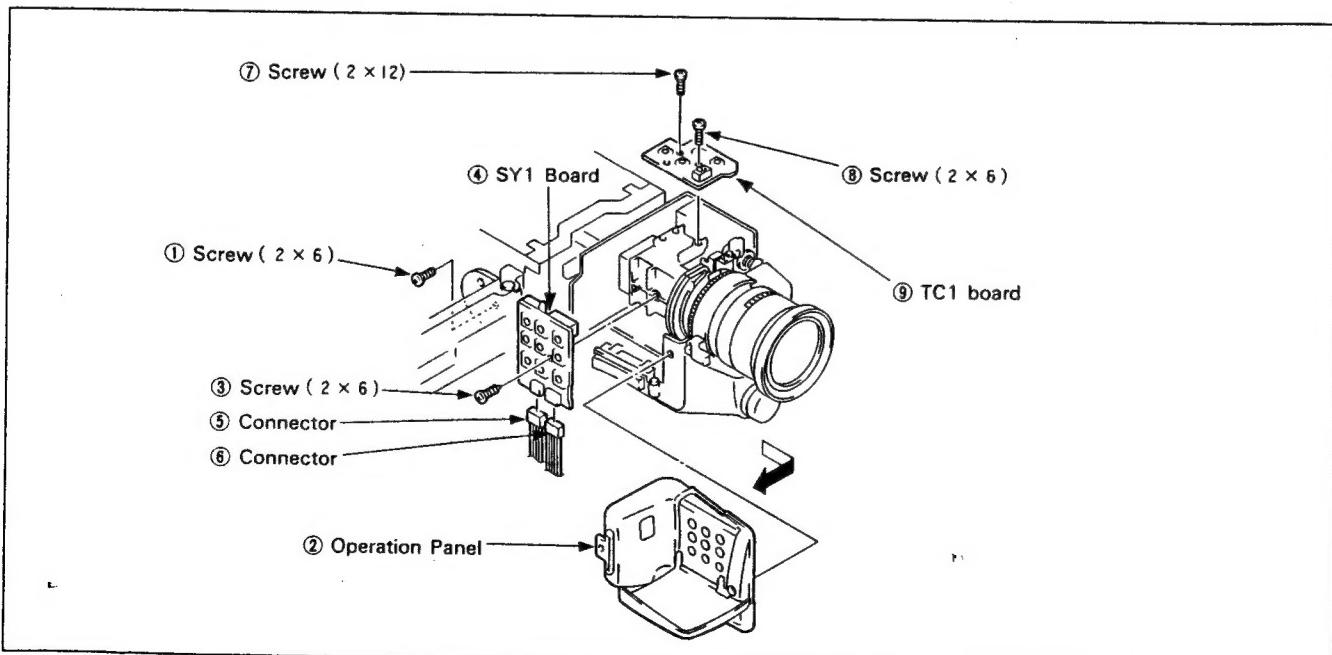


Fig. 2-2.

2-3. Removing Viewfinder

- 1) Remove screw ① then bracket ②.
- 2) Remove connector ③ and separate the viewfinder block from the body.
- 3) Remove screws ④ (4pcs) then the upper cabinet ⑤ and eyepiece ⑥.
- 4) Remove connector ⑦ and fixer ⑧. Separate lower cabinet ⑨ from VF1 board ⑩.

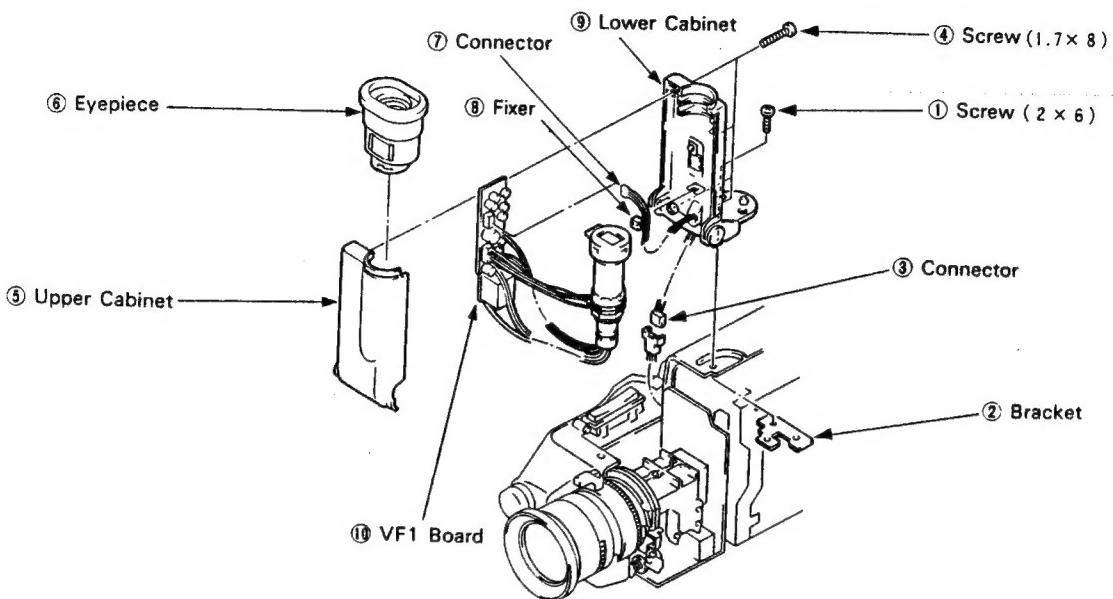


Fig. 2-3.

2-4. Removing Camera Block

- 1) Remove screw ①. Lift the camera block.
- 2) Remove connectors ② and ③. Detach the camera block.
- 3) Unsolder and remove shield plate ④.
- 4) Remove screws ⑤ (2 pcs) then CA1 board ⑥.
- 5) Remove TC3 board ⑧ from CA2 board ⑦.

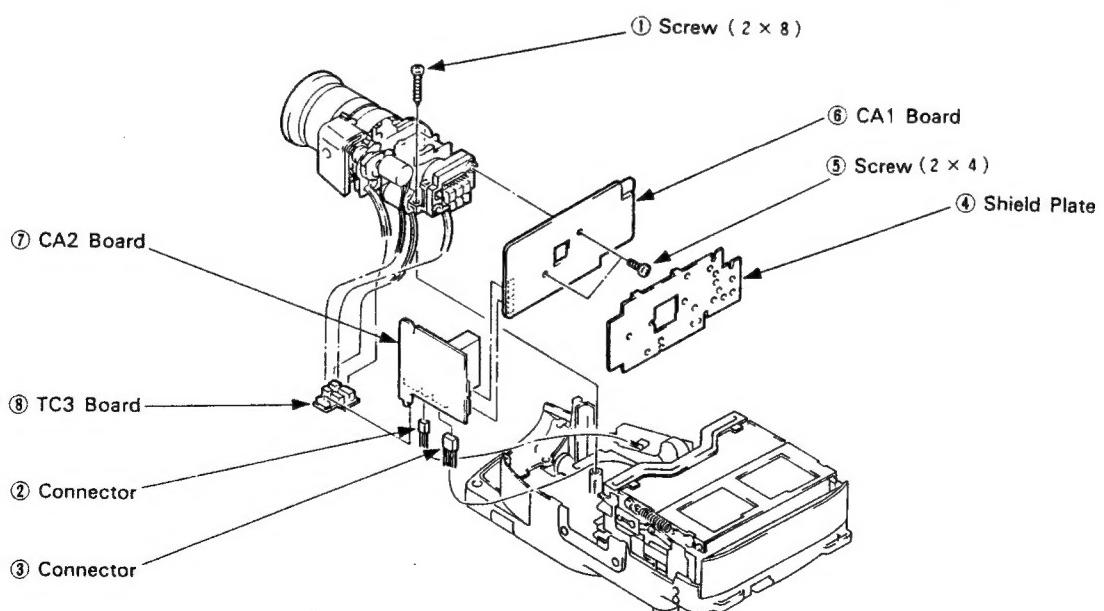


Fig. 2-4.

2-5. Removing VTR Deck and Right Cabinet

- 1) Remove screws ① (3 pcs) then microphone holding cabinet ②.
- 2) Remove screws ③ (4 pcs), connector ④ and microphone ⑤.
Detach VTR deck ⑥ from right cabinet ⑦.

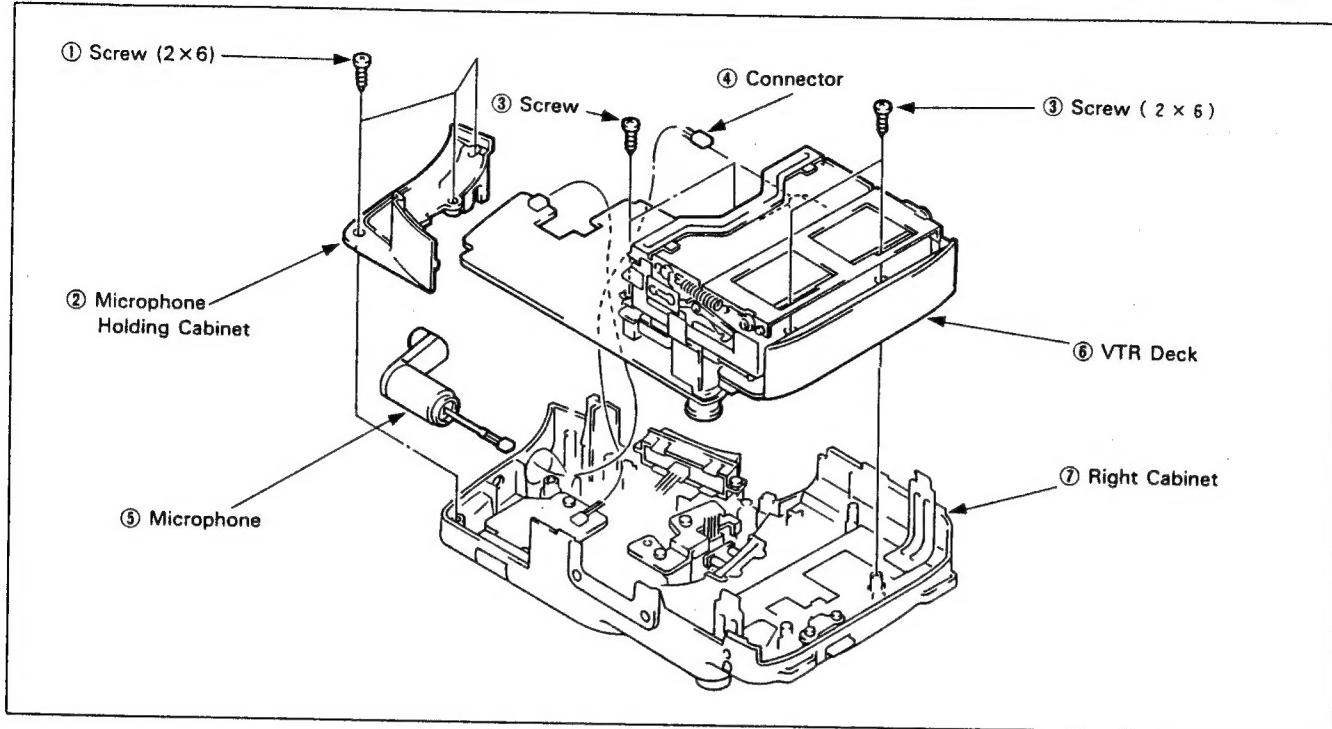


Fig. 2-5.

2-6. Removing VD1, SV1 and VP1 Boards

- 1) Remove screws ① (2 pcs). Remove VD1 board ② from the subchassis locks.
- 2) Remove connector ③.
- 3) Remove FPC connectors ④, ⑤, ⑥ and ⑦. Remove SV1 board ⑧ and VP1 board ⑨.

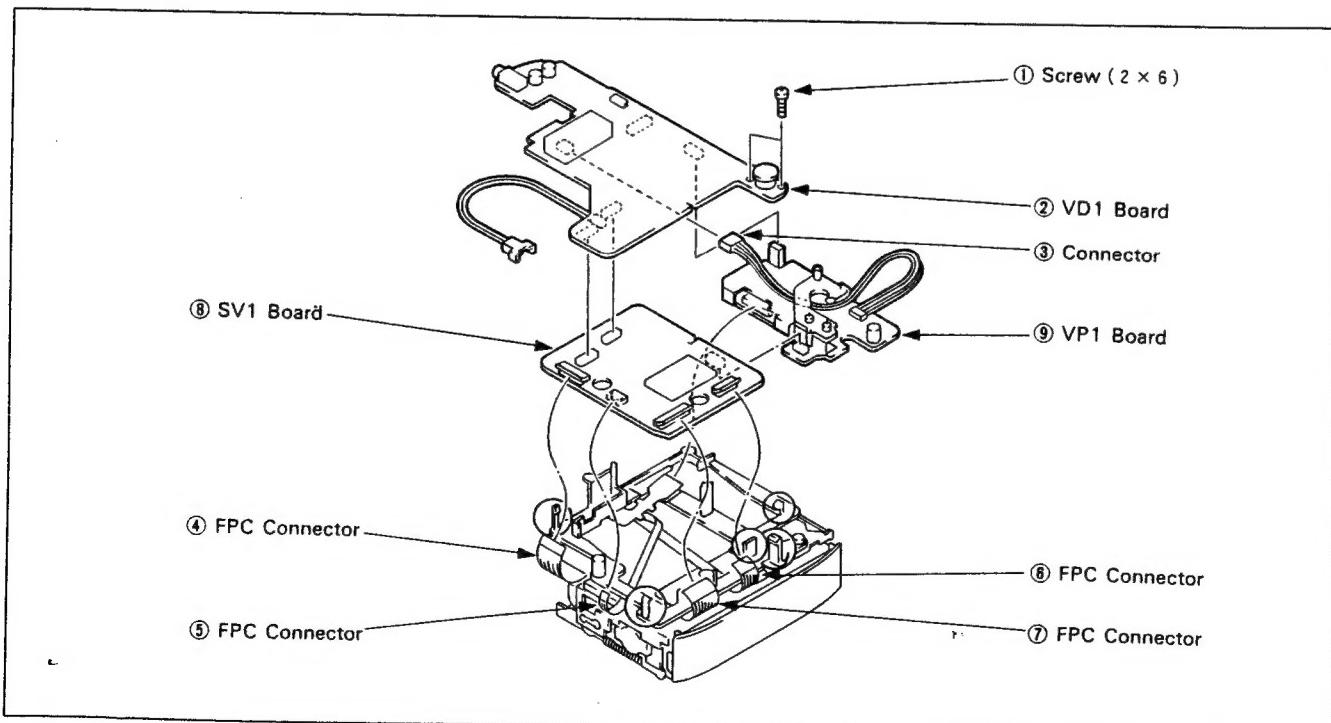
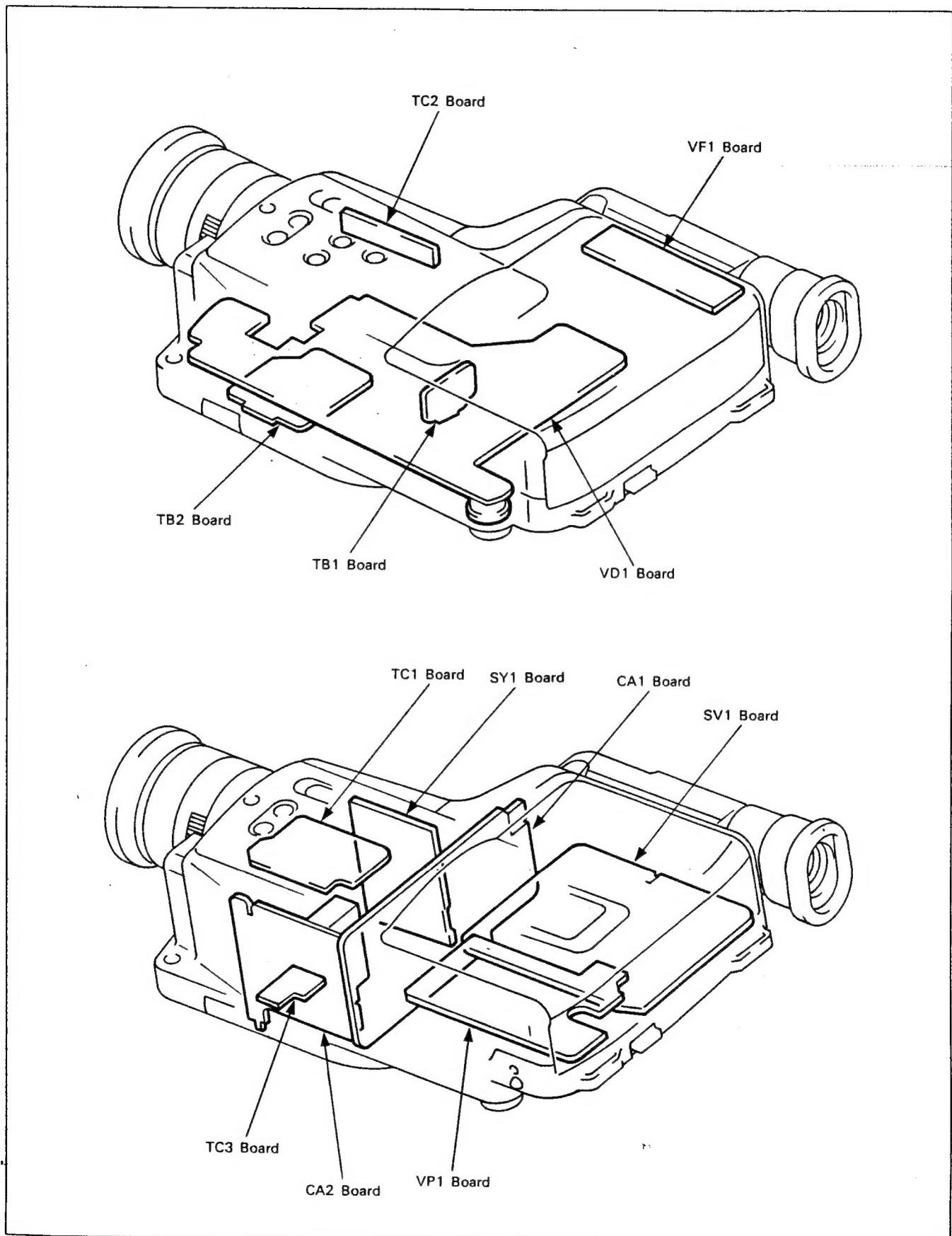


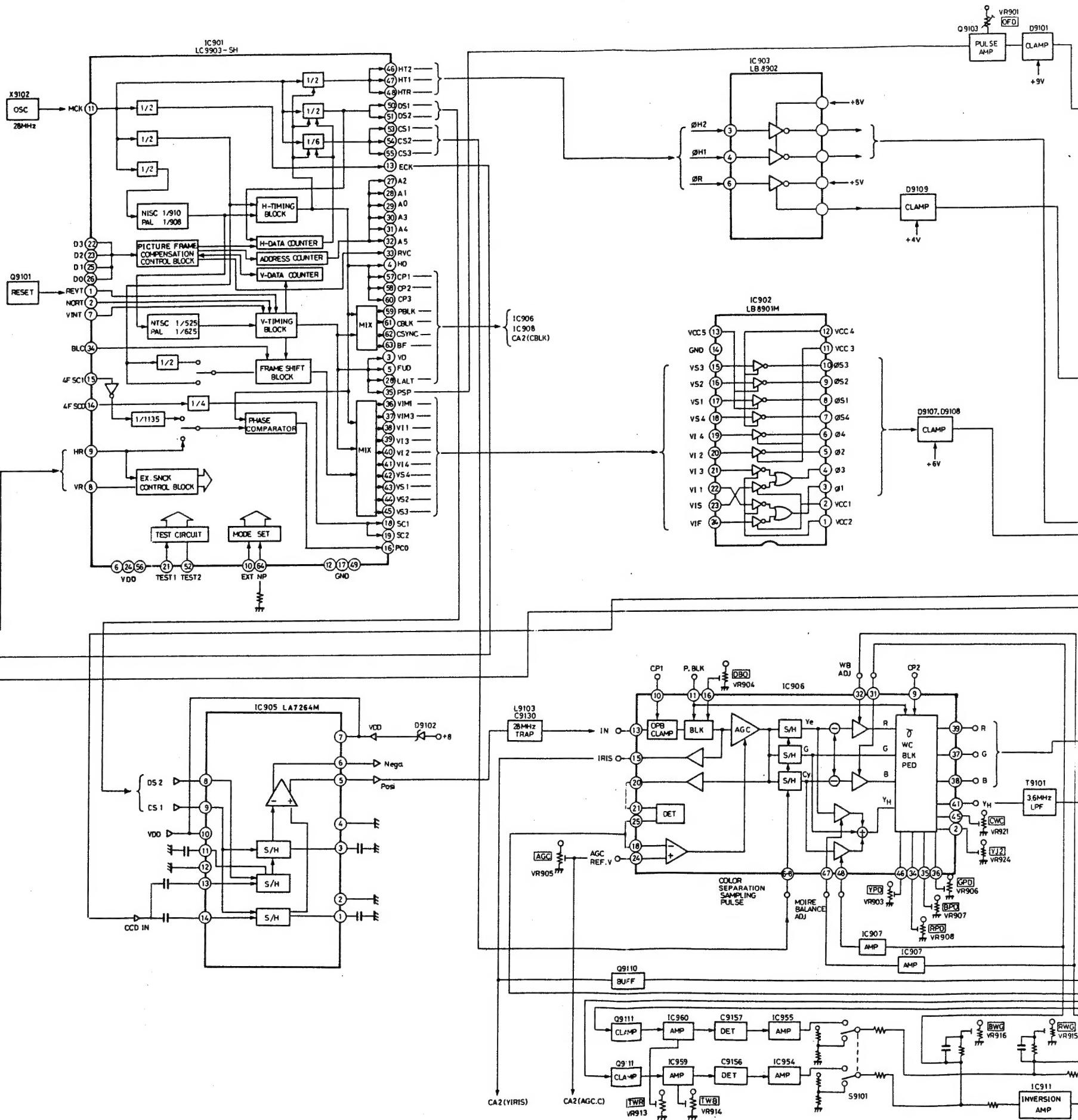
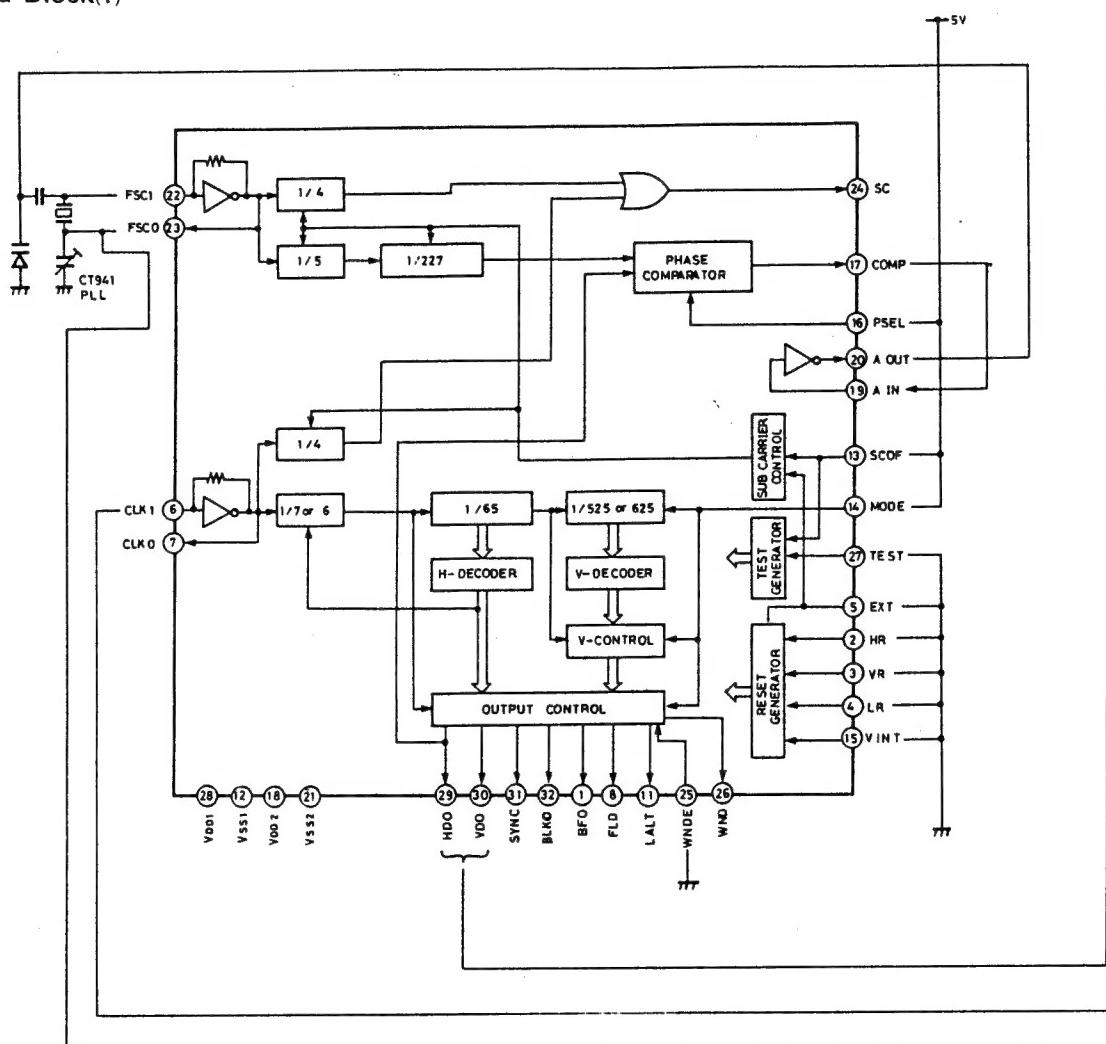
Fig. 2-6.

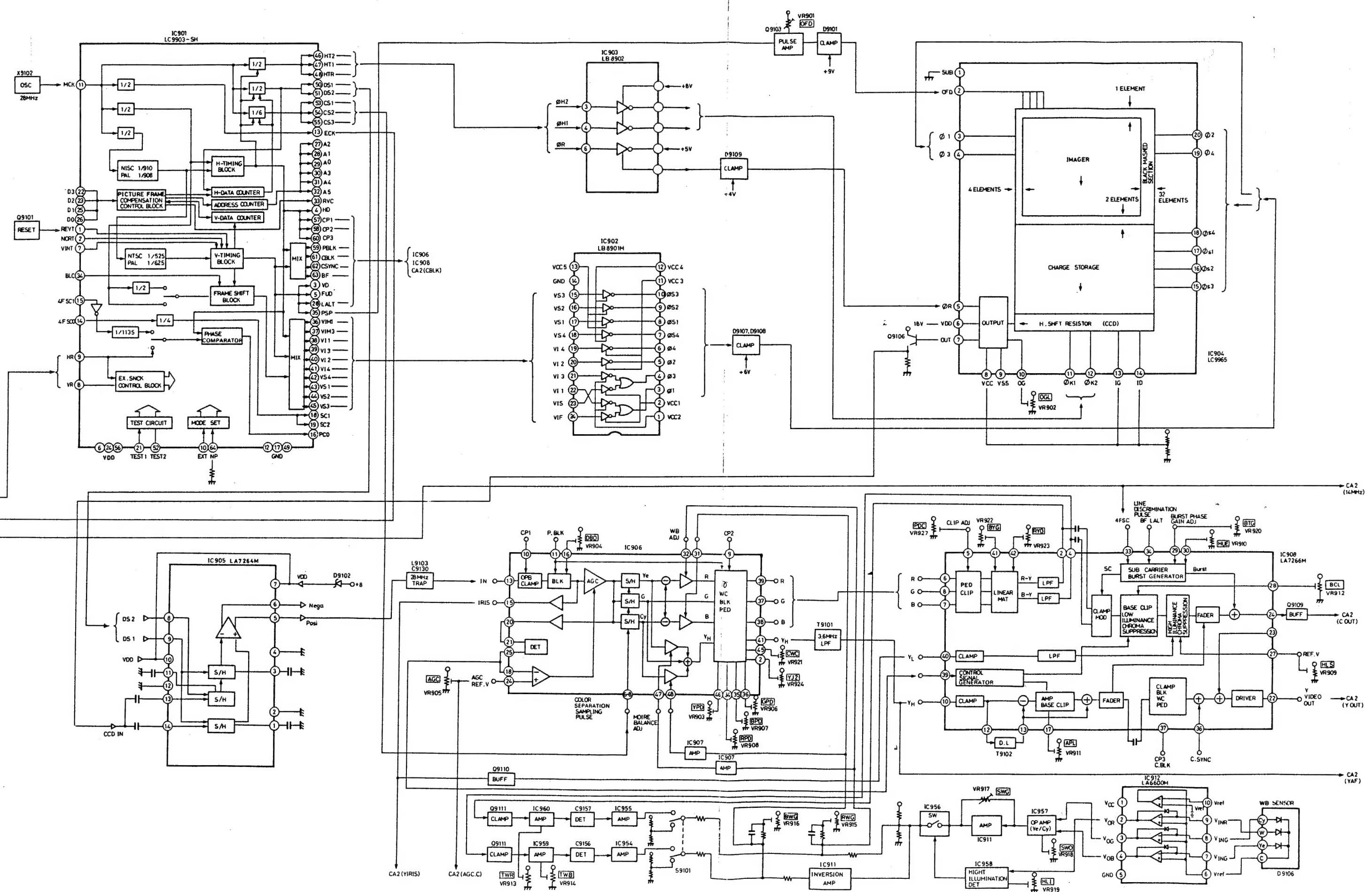
3. DIAGRAM

3-1. PCB Location

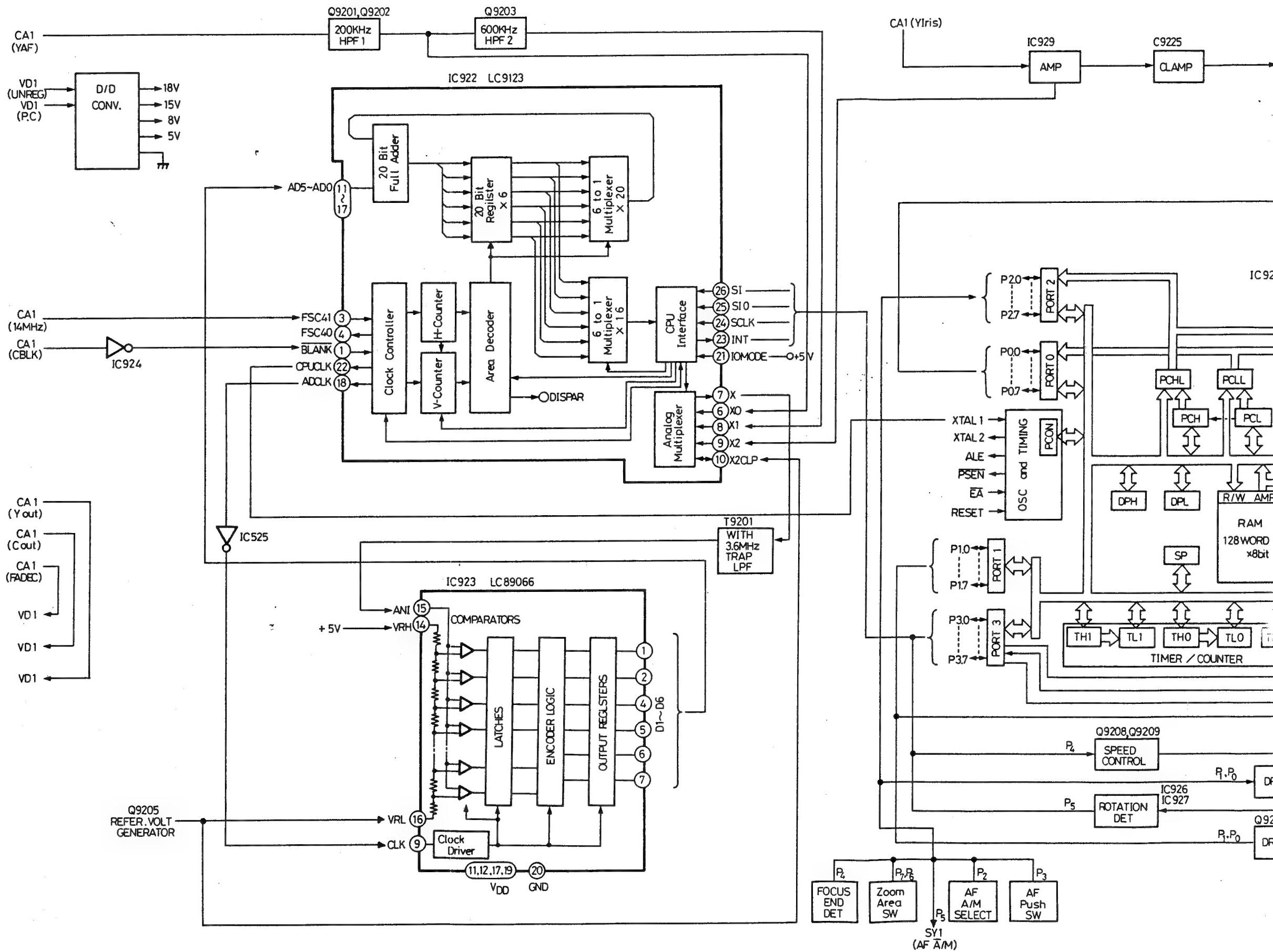


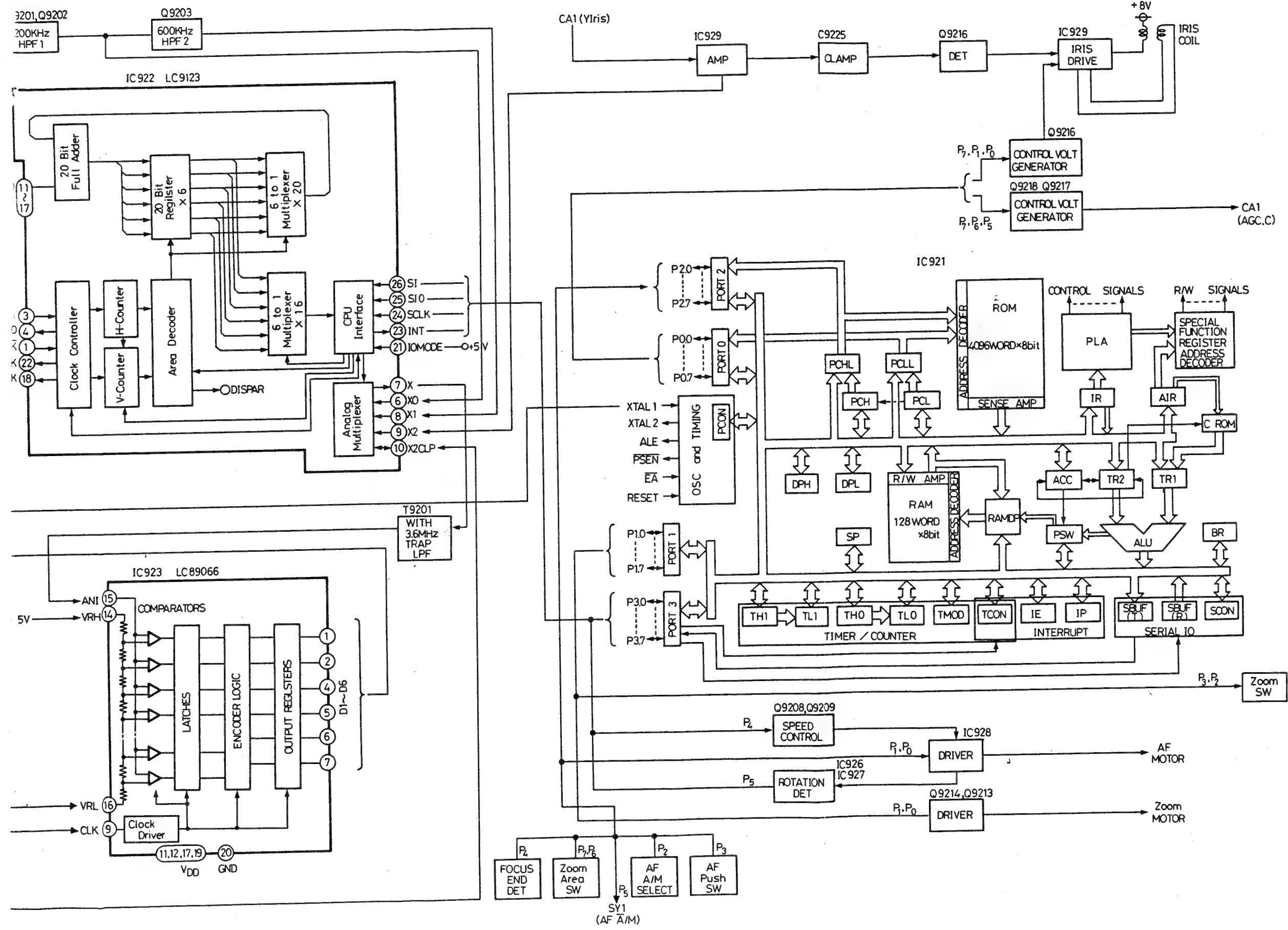
3-2. Camera Block(1)



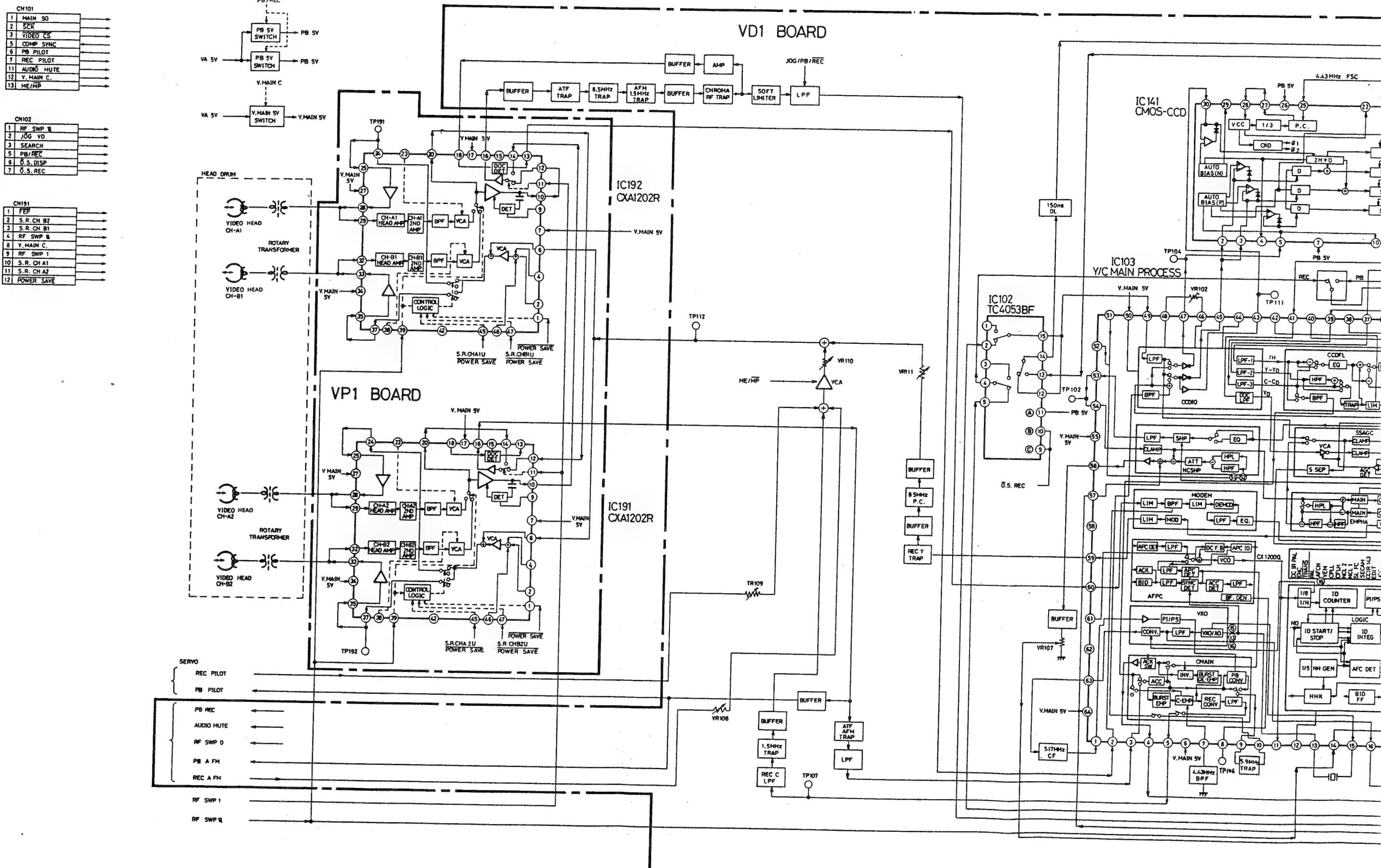


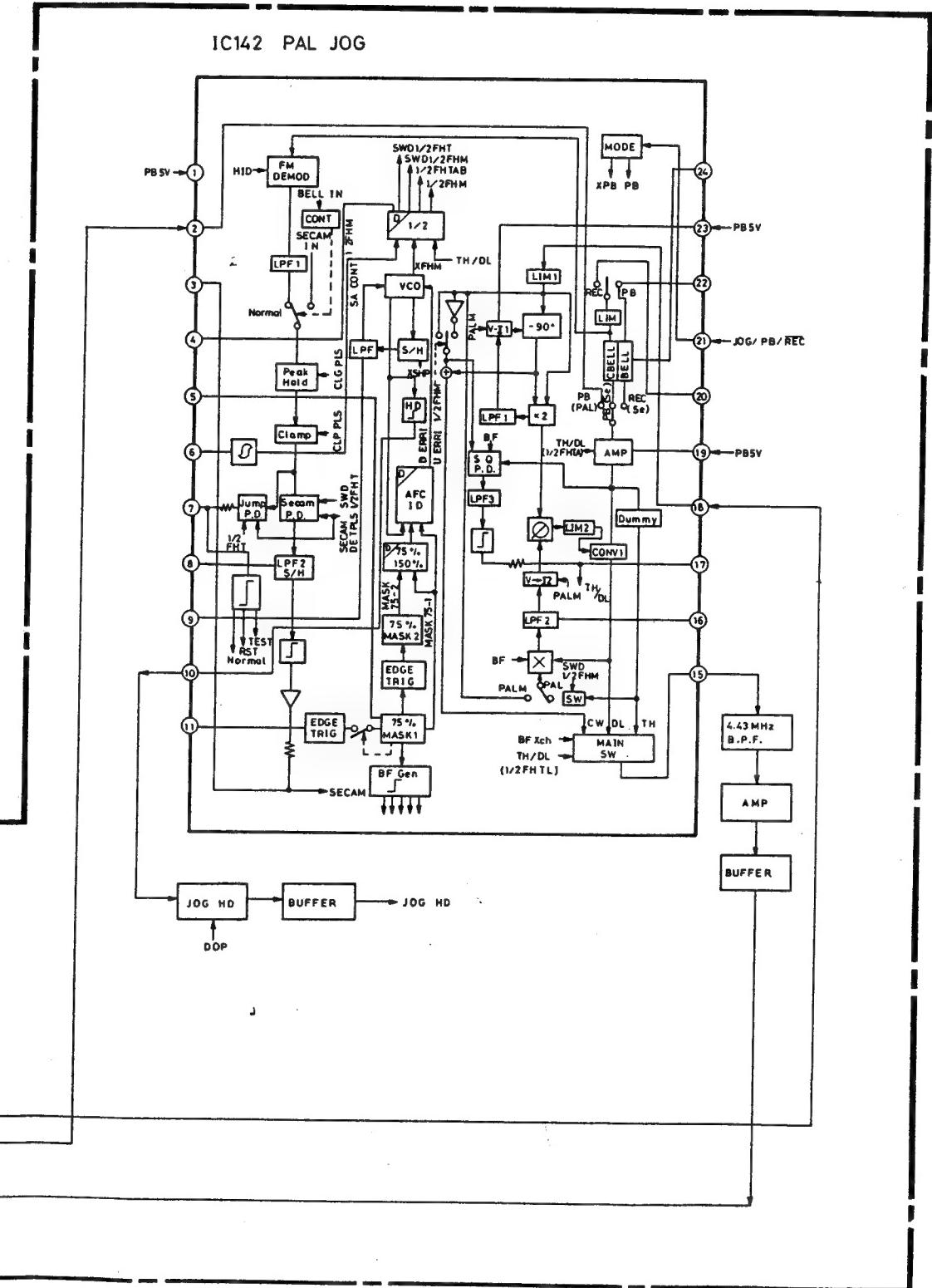
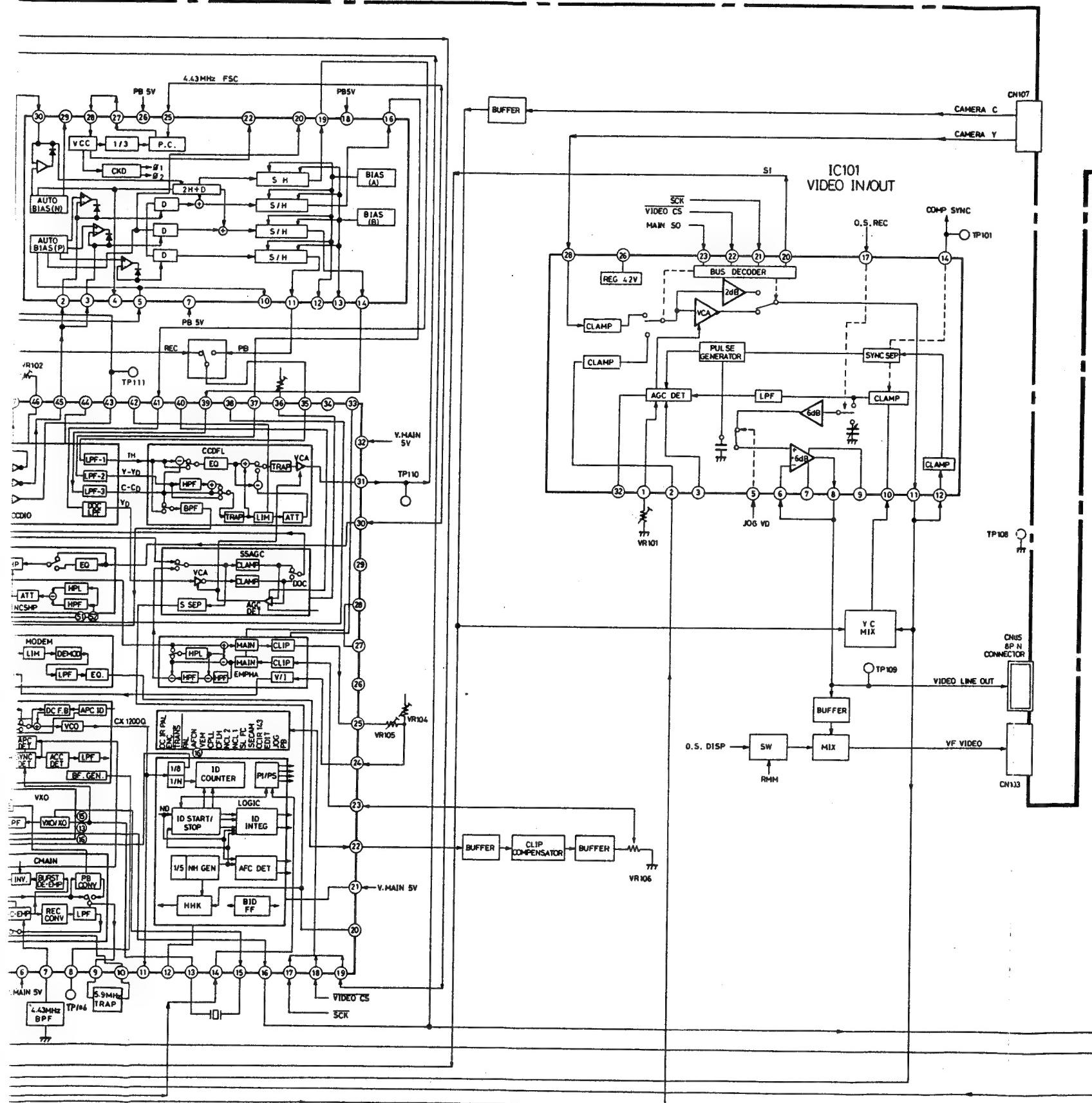
3-3. Camera Block(2)



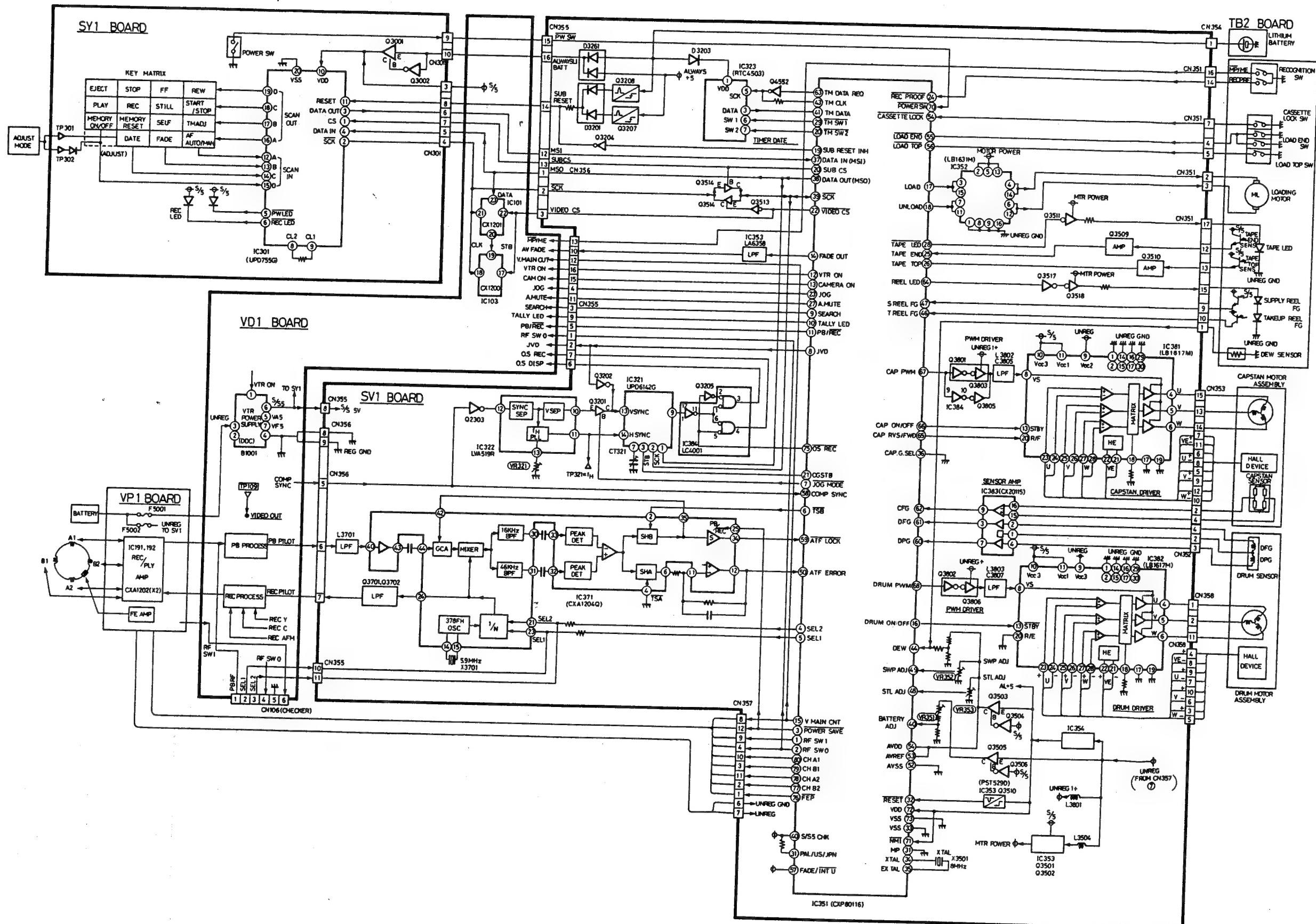


3-4. Video Block

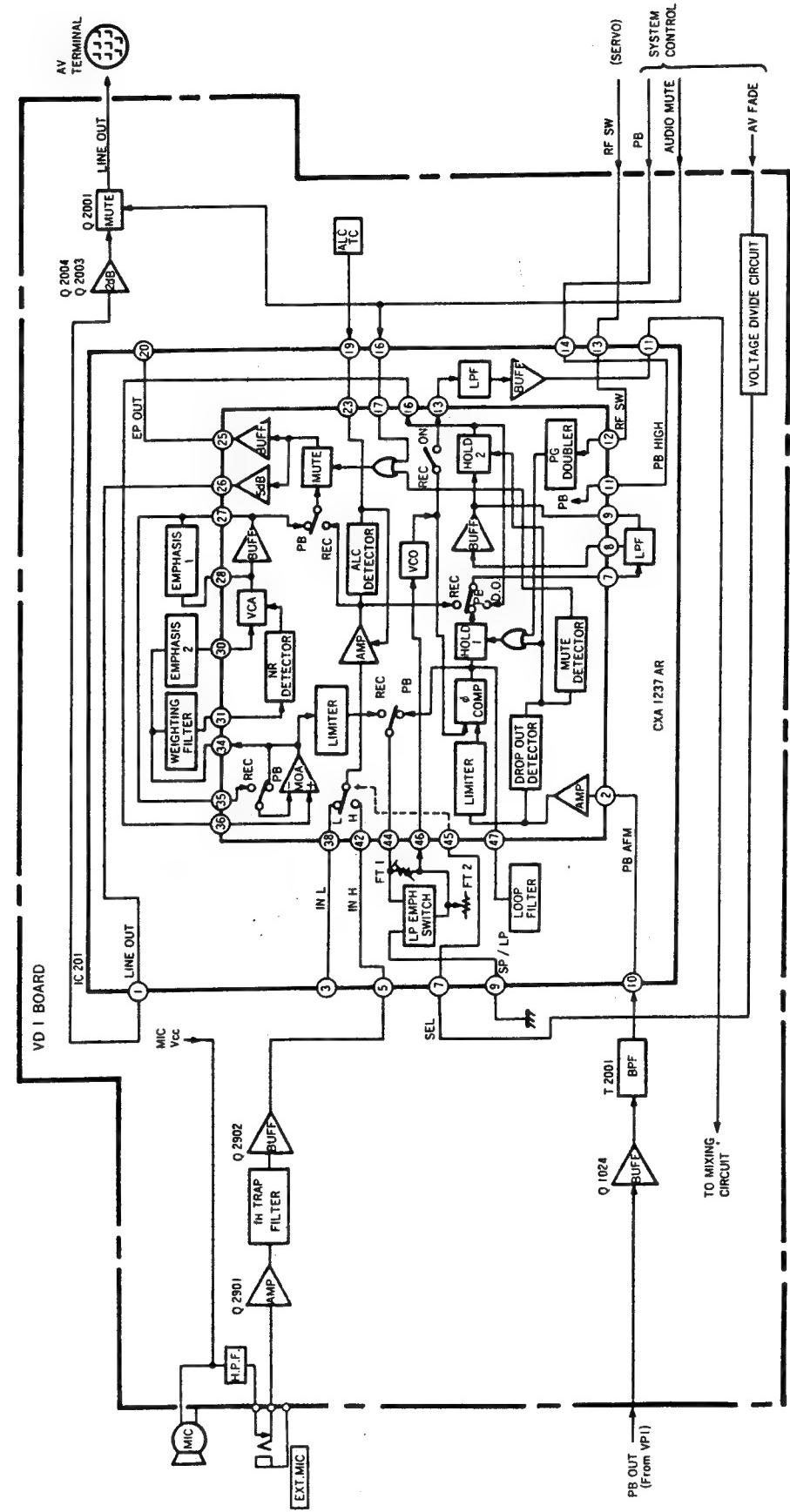




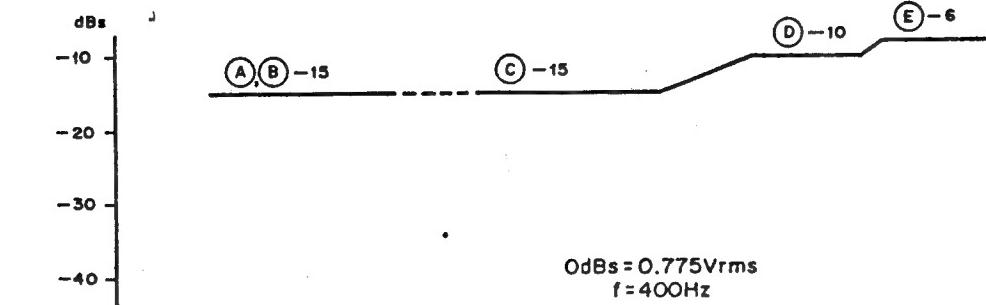
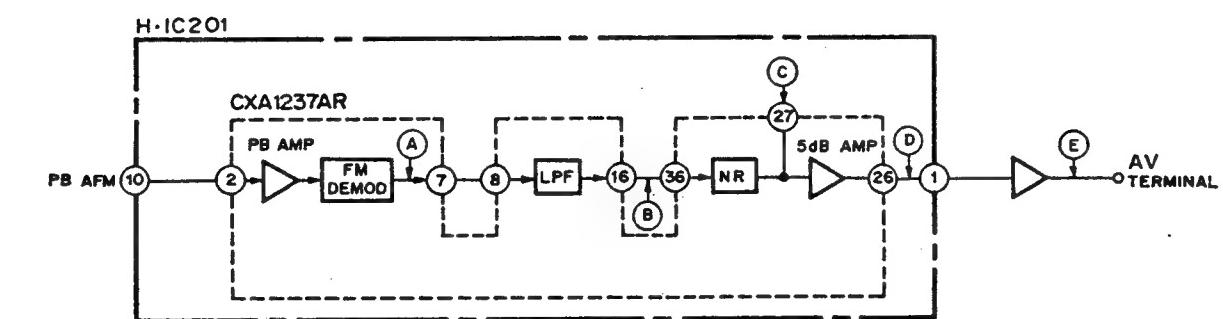
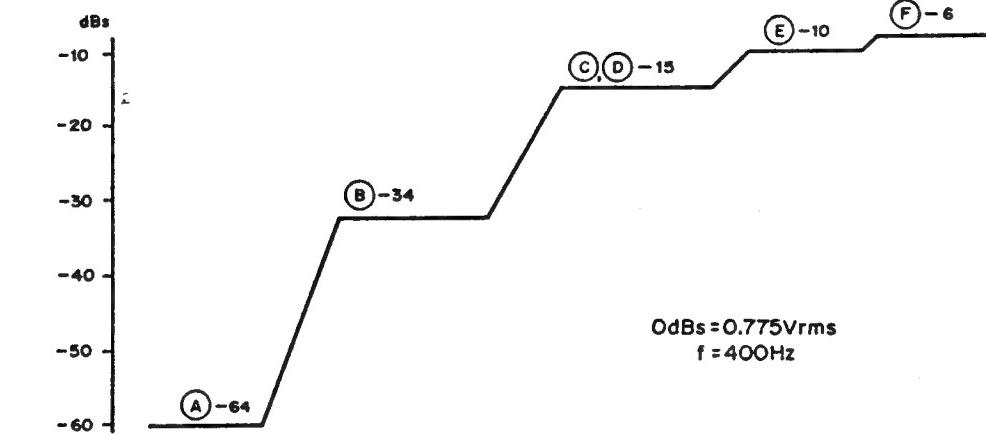
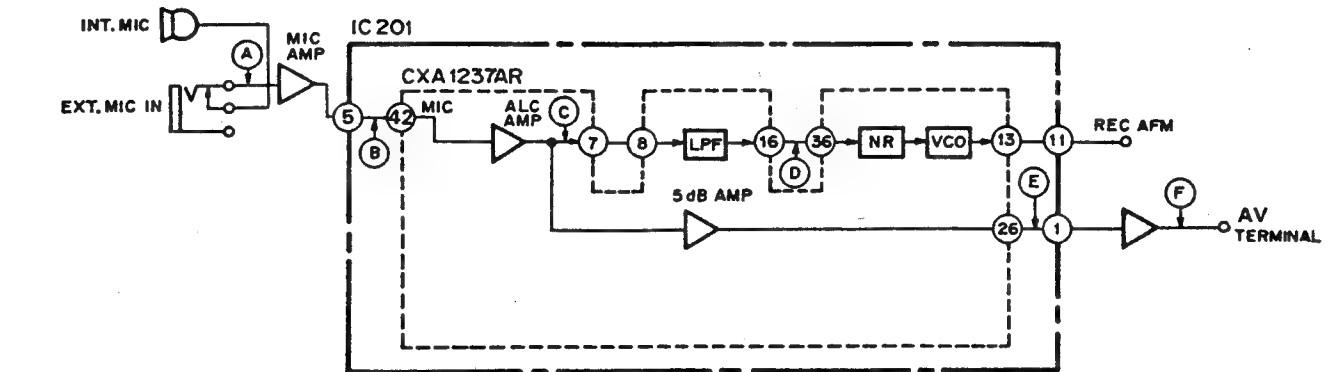
3-5. Servo/System Control Block



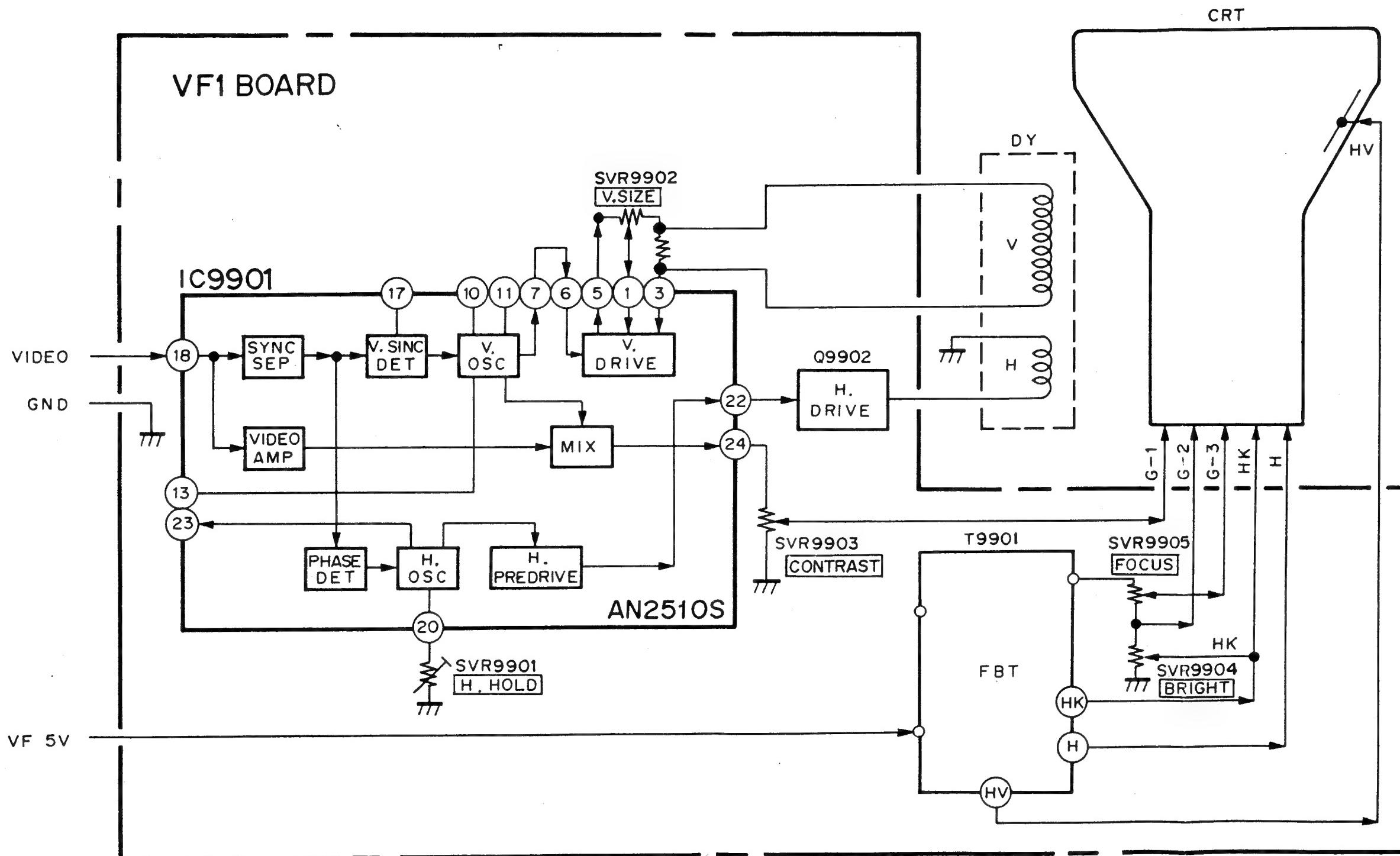
3-6. Audio Block



3-7. Audio Level Block



3-8. Viewfinder Block



4. ADJUSTMENTS

1. CAMERA SECTION	24	2-7-2. Preparation for adjustments	59
1-1. List of Service Jigs	24	2-7-3. Tracking for adjustments	59
1-2. Equipment Required	25	2-7-4. Tracking fine adjustment	60
1-3. Adjusting Procedure	25	2-7-5. No.4 guide (TG4) adjustment	60
1-4. Setup And Connections	25	2-7-6. No.9 guide (TG9) adjustment	61
1-5. Precautions	26	2-7-7. Verification of CUE and REV waveforms	61
1-6. OB Offset Adjustment	27	2-7-8. Checking after adjustments	61
1-7. Black Balance Adjustment	27		
1-8. White Balance Adjustment	27		
1-9. Y Level Adjustment	28		
1-10. Chroma Level Adjustment	28		
1-11. Sensor White Balance Adjustment	29		
1-12. Flange Back Adjustment	29		
1-13. Flickerless Adjustment	29		
2. MECHANICAL SECTION	30	3. VIDEO AJUSTMENTS	63
2-1. Cassette Mechanism	30	3-1. System Control/Servo System Adjustment	66
2-2. Removing Loaded Cassette	31	3-1-1. Battery low voltage adjustment	66
2-3. Operating Without Cassette Mechanism	32	3-1-2. H sync oscillation frequency adjustment	67
2-4. Mode Selector Connection and Mode Operation	33	3-1-3. Mark position adjustment	67
2-5. Periodic check and Maintenance	34	3-1-4. Video center adjustment	67
2-5-1. Cleaning cylinder	34	3-1-5. Still adjustment	67
2-5-2. Cleaning tape transporting system	34	3-2. Video System Adjustment	68
2-5-3. Cleaning driving system	34	3-2-1. Playback frequency characteristics check (VD1)	68
2-5-4. Items to be checked periodically	35	3-2-2. Flying erase check (VP1)	68
2-5-5. Service jig list	36	3-2-3. SYNC AGC adjustment (VD1)	68
2-6. Checking, Adjusting and Replacing Mechanical Section	37	3-2-4. Y/C separation adjustment (VD1)	69
2-6-1. S reel base ASSY	37	3-2-5. BF position adjustment (VD1)	69
2-6-2. T reel base ASSY	38	3-2-6. PB Y level adjustment (VD1)	69
2-6-3. Pinch roller & lever ASSY	39	3-2-7. PB LINE OUT level adjustment (VD1)	69
2-6-4. Back tension lever ASSY	40	3-2-8. Y FM carrier frequency adjustment (VD1)	70
2-6-5. Idler gear ASSY	41	3-2-9. Y FM deviation adjustment	70
2-6-6. Phase matching during installation of reel chassis to main chassis	42	3-2-10. REC Y recording current adjustment (VD1)	70
2-6-7. Pinch pressure slider	43	3-2-11. REC C recording current adjustment (VD1)	71
2-6-8. S shuttle ASSY	44	3-2-12. REC AFM recording current adjustment (VD1)	71
2-6-9. T shuttle ASSY	45	3-2-13. REC ATF recording current adjustment (VD1)	72
2-6-10. Loading ring ASSY's T and S	46	3-3. Audio System Adjustment	72
2-6-11. Flexible PC board (Reel chassis)	47	3-3-1. Audio system measuring setup	72
2-6-12. Flexible PC board (Main chassis)	49	3-3-2. FM audio carrier frequency check (VD1)	73
2-6-13. Loading motor ASSY	50	3-3-3. FM audio deviation check (VD1)	73
2-6-14. TG4	51	3-3-4. E-E output level check	73
2-6-15. Cylinder Base	52	3-3-5. Overall level characteristics check	73
2-6-16. In-phasing during installation of cylinder base to the main chassis	53	3-3-6. Overall distortion factor check	73
2-6-17. Cylinder	54	3-3-7. Overall S/N check	73
2-6-18. Checking reel height	55		
2-6-19. Checking FWD and RVS torque	55		
2-6-20. Adjusting BT lever position	56		
2-6-21. FWD back tension adjustment	57		
2-7. Tape Path Adjustment	58	4. EVF ADJUSTMENTS	74
2-7-1. Connecting shift track jig	58	4-1. Equipment Required	74
		4-2. Adjustment Priority	74
		4-3. Horizontal Frequency Oscillation Adjustment	74
		4-4. Finder Temporary Adjustment	74
		4-5. Centering Adjustment	74
		4-6. Finder Tilt Adjustment	74
		4-7. Vertical Size Adjustment	75
		4-8. Contrast Adjustment	75
		4-9. Brightness Adjustment	75
		4-10. Focus Adjustment	75
		5. SVR,TP LOCATIONS	76

1. CAMERA SECTION ADJUSTMENTS

1-1. Service Jigs List

Ref. No.	Name	Part Code	Application
J-1	Color Viewer 5100°K	VJ8-0007	Overall
J-2	Filter (LBA-8)	VJ8-0002	Sensor white balance Adjustment
J-3	Gray Scale	VJ8-0010	White balance adjustment
J-4	Color Bar Chart	VJ8-0009	Chroma level adjustment
J-5	Camera Block Fixing Jig	VJ8-0060	Camera block locking
J-6	PCB Extention Cord	VJ8-0056	Camera block extension
J-7	Socket Extractor Jig	VJ8-0030	Socket removal
J-8	Pan Head	VJ8-0020	Camera block locking
J-9	PCB Extension Cord	VJ8-0055	Camera PCB extension
J-10	PCB Extension Cord	VJ8-0057	Camera PCB extension
J-11	TP Check PCB	VJ8-0064	TP measurement

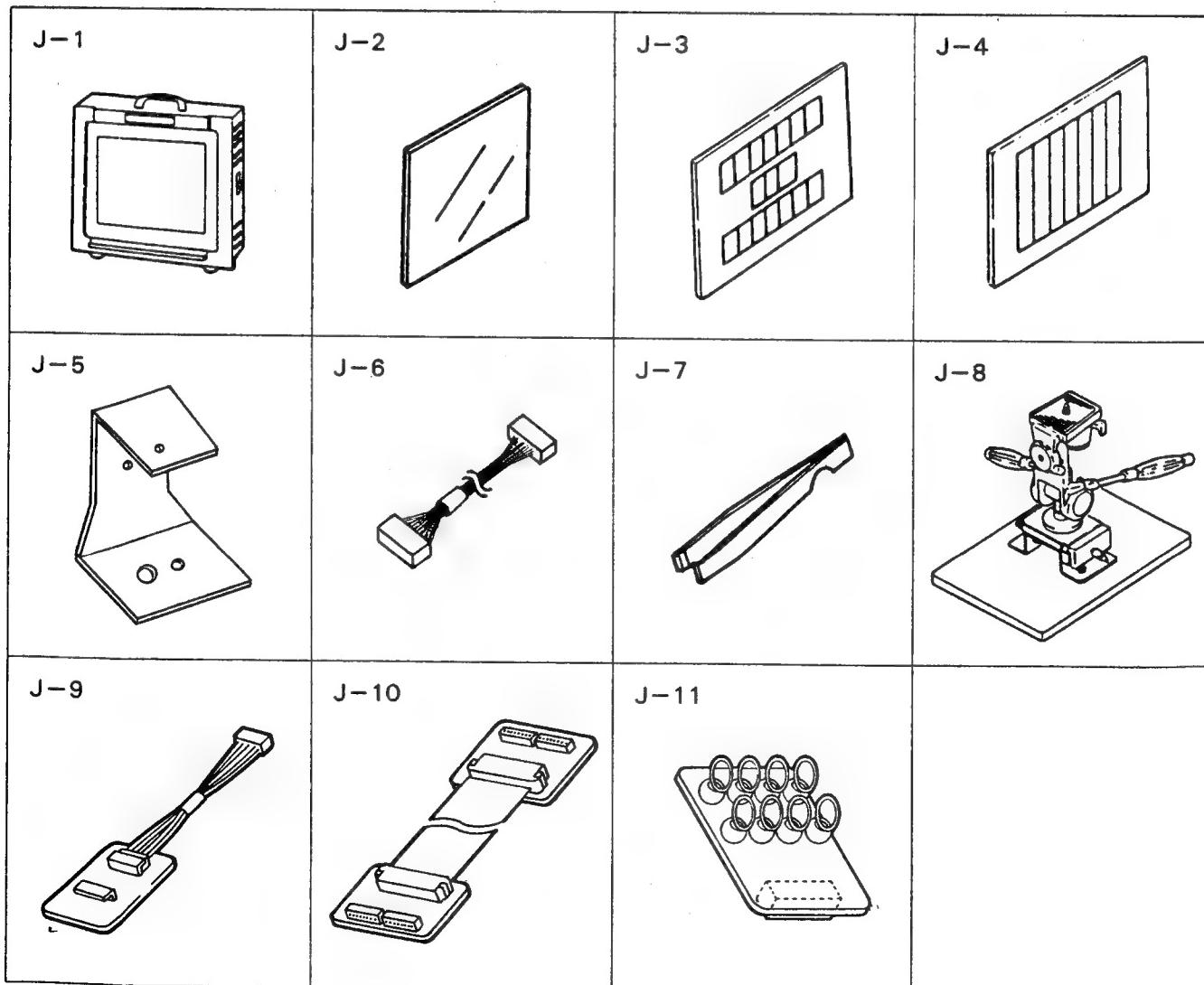


Table 1-1.

1-2. Equipment Required

1. Oscilloscope
2. Color Monitor
3. RF Adaptor (supplied with this unit)
※ Use of Vector scope is recommended.

1-3. Adjusting Procedure

1. OB offset adjustment
2. Black balance adjustment
3. White balance adjustment
4. Y level adjustment
5. Chroma level adjustment
6. Sensor white balance adjustment
7. Flange back adjustment
8. Flickerless adjustment

1-4. Setup and Connections

Refer to Section 2. REMOVAL PROCEDURE for removing cabinets and PC boards.

- 1) Referring to Fig. 1-1., attach the camera to the jig J-5.
- 2) Set up the camera as shown in Fig. 1-2.

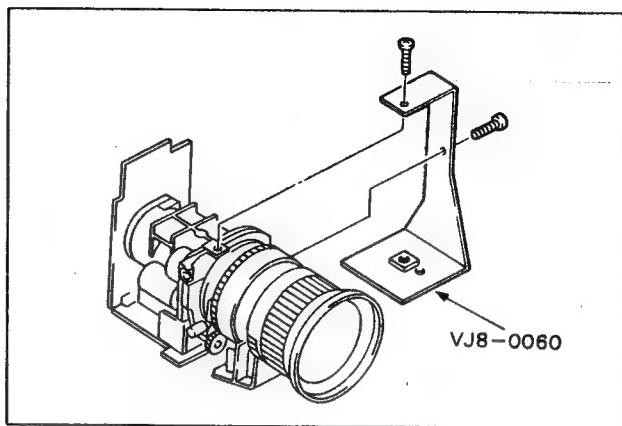


Fig. 1-1.

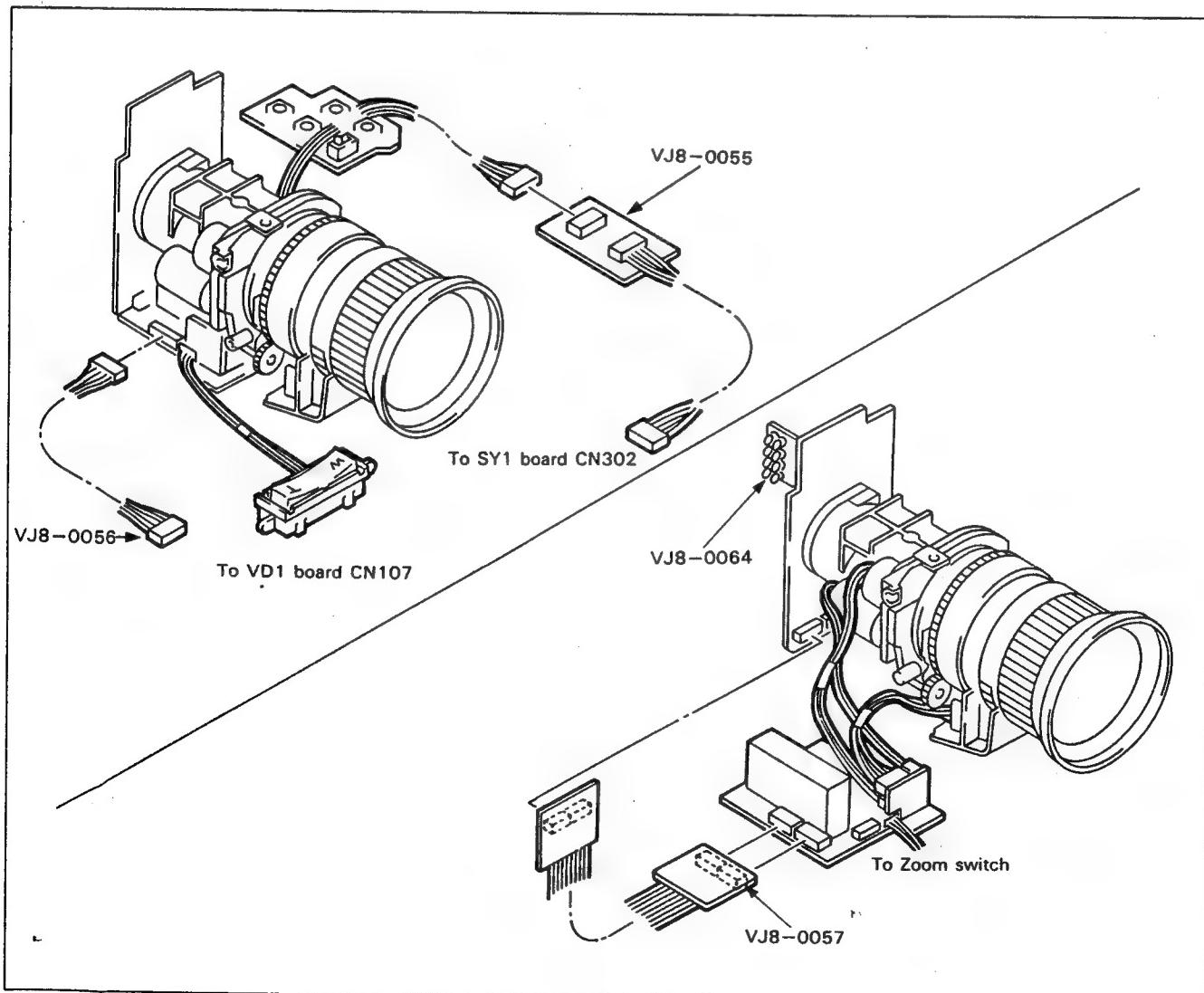


Fig. 1-2.

3) Interconnection

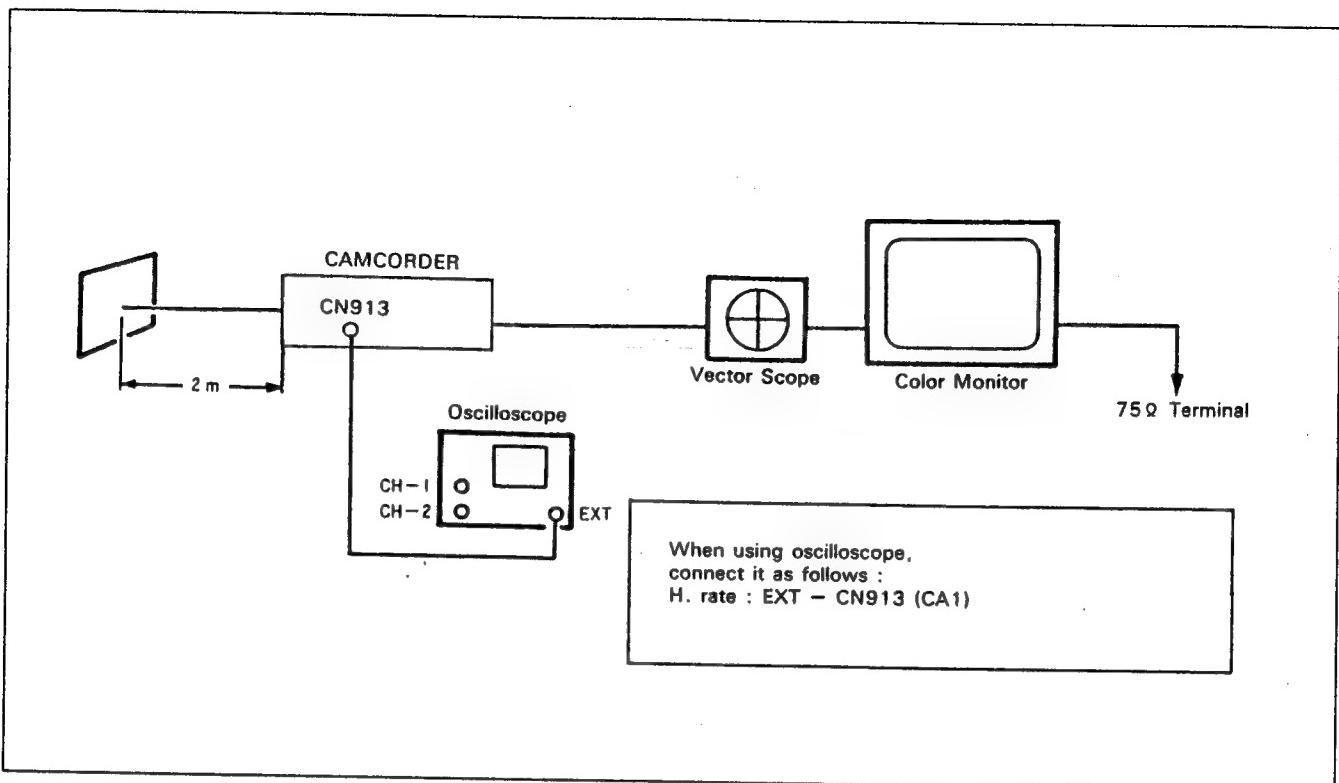


Fig. 1-3.

1-5. Precautions

- ① Set the frame as shown in Fig. 1-4. below unless specified otherwise.

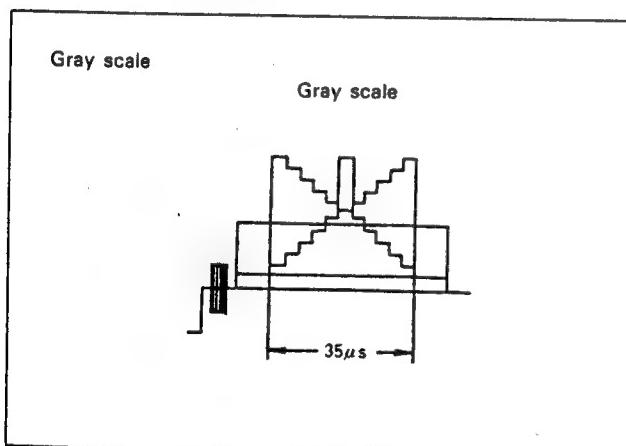


Fig. 1-4.

- ② Set FOCUS switch to Manual
 ③ Set potentiometers as shown below.
 VR912 (BCL) : Center
 VR909 (HLS) : Approx. 90 degrees clockwise from the center
 VR919 (HLI) : Fully clockwise from the center
 VR901 (OFD) : Approx. 90 degrees counterclockwise from the center
 VR921 (CWC) : Center

VR924 (Y_{r2}) : Center
 VR911 (APL) : Approx. 90 degrees counterclockwise from the center
 VR926 (Y_{r1}) : Center
 VR927 (PDC) : Adjust to $2.35 \pm 0.05V$ of the center
 VR905 (AGC) : Center

- ④ Set S9101 (WBS) to the upper position.

Remember to set it back to the lower position after adjustments.

- ⑤ Connect TP921 (AES) to GND.
 ⑥ Allow at least 10 minutes for warmup.
 ⑦ "SYNC Ref" stated in the adjustment procedure stands for a value given as a percentage with the SYNC level on the scope being assumed at 30 percent.
 ⑧ "AGC off" stated in the adjustment procedure stands for the status with TP908 and TP901 shorted together. And "AGC ON" under an open status.
 ⑨ Make adjustment under the status with shield plate being attached.

Caution : Set the cursors of the remaining potentiometers to their mid point when adjusting the unit for the first time after having replaced a PC board or major part.

1-6. OB Offset Adjustment

Instrument : Oscilloscope

Measuring points : TP904 (AGC),

Y Output (CN912⑥)

Adjusting VR : VR904 (OBO), VR905 (AGC),
VR902 (OGL)

Setup :

- ① Cap the lens.
- ② Monitor the waveform on TP904 (AGC) on oscilloscope ($10\mu S/0.5V/div$).
- ③ Monitor Y output (CN912⑥) on oscilloscope ($10\mu S/0.1V/div$).

Adjusting procedure :

- 1) Rotating VR902 (OGL) clockwise from extreme counterclockwise, point adjust for 0 level of pulse in H blanking signals on TP904, as shown in Fig. 1-5. Further advance the VR until the wiper reads 1V below that of 0 pulse point (approx. 20 degrees).
- 2) Adjust VR904 (OBO) so that the blanking pulse and signal are equal to each other in level on TP904. (See Fig. 1-5.)
- 3) While switching AGC from off to ON, note the change in setup level on Y output.
- 4) If the change is -2% or positive with respect to SYNC Ref., slightly decrease setup level with VR904. If less than -2% and negative, slightly increase the level.
- 5) Repeat steps 3) and 4) until the setup level varies by -2% when AGC is switched from off to ON.

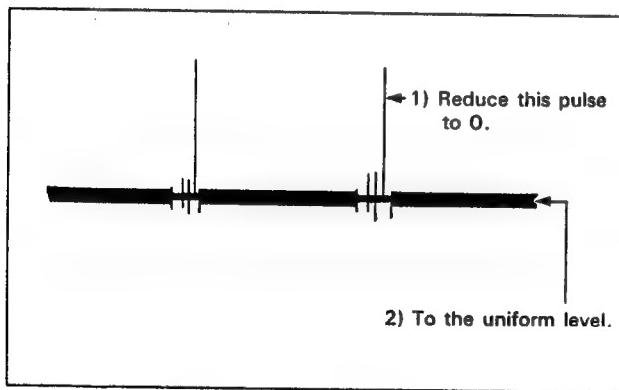


Fig. 1-5.

1-7. PLL Lock Voltage Adjustment

Instrument : Oscilloscope

Measuring point : TP941 (PLL)

Adjusting CT : CT941 (PLL)

Adjusting procedure :

- 1) Adjust CT941 (PLL) for $2.40 \pm 0.02V$ on TP941.

1-8. Black Balance Adjustment

Instrument : Oscilloscope

Measuring point : TP906 (G OUT)

Adjusting VR : VR906 (GPD), VR907 (BPD),
VR908 (RPD)

Setup :

- ① Cap the lens.
- ② Turn AGC off.
- ③ Monitor TP906 (G OUT) on the oscilloscope ($10\mu S/0.1V/div$).
- ④ Monitor TP902 (R-Y) and TP903 (B-Y) simultaneously on the oscilloscope ($10\mu S/0.05V/div$).

Adjusting procedure :

- 1) Adjust VR906 (GPD) so that the center of the signal of TP906 coincides with the blanking level.
- 2) Adjust VR907 (BPD) and VR908 (RPD) so that the center of the signals of TP902 and TP903 remain at the blanking level.

1-9. OFD Voltage Adjustment

Instrument : Monitor TV

Subject to be shot : 5100°K viewer
(without chart)

Adjusting VR : VR901 (OFD)

Adjusting procedure :

- 1) Shoot the viewer located in a dark room at the image angle of approx. $1/5H$.
- 2) Set VR901 to the right end position, and turn the blurring and burr appearing in the lower part of the viewer counterclockwise so that they will disappear in the viewer. (See Fig. 1-6.)

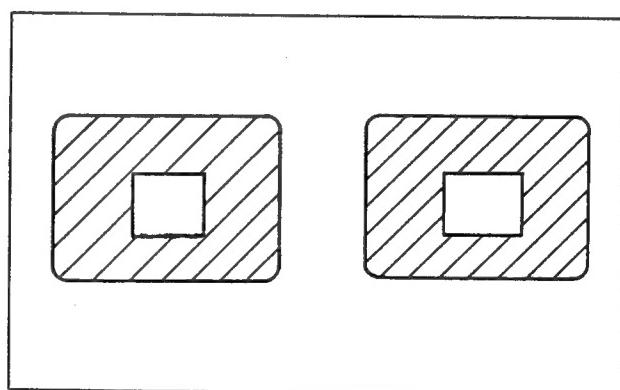


Fig. 1-6.

1-10 White Balance Adjustment

Instrument : Oscilloscope

Subject to be shot : 5100°K viewer, Gray scale

Adjusting VR : VR915 (RWG), VR916 (BWG),
VR905 (AGC), VR913 (TWR),
VR914 (TWB), VR921 (CWC),

Setup :

- ① Use the 5100°K viewer for full screen without using the chart.
- ② Turn AGC ON.
- ③ Monitor TP902 (R-Y) and TP903 (B-Y) simultaneously on the oscilloscope ($10\mu S/0.05V/div$).

- ④ Monitor TP904 (AGC) on the oscilloscope ($10\mu\text{s}/0.1\text{V}/\text{div}$).

Adjusting procedure :

- 1) Adjust VR905 (AGC) for 240mVp-p signal level on TP904.
- 2) Set S9101 at the upper. Adjust VR915 (RWG) and VR916 (BWG) so that the centers of signals on TP902 and TP903 are on the blanking level.
- 3) Set S9101 at the lower. Adjust VR913 (TWR) and VR914 (TWB) so that the centers of signals on TP902 and TP903 are on the blanking level.
- 4) While shooting the-gray scale at a right angle to the $30\mu\text{s}$ size, adjust VR921 (CWC) so that the waveforms on TP902 and TP903 are almost linear : The signal levels adjacent to the gray scale on TP906 (G OUT) should not change after adjustment.
- 5) Attach the lens cap and turn AGC off.
- 6) Confirm well balanced black signal levels on TP902 and TP903. If not, readjust VR907 (BPD) and VR908 (RPD).

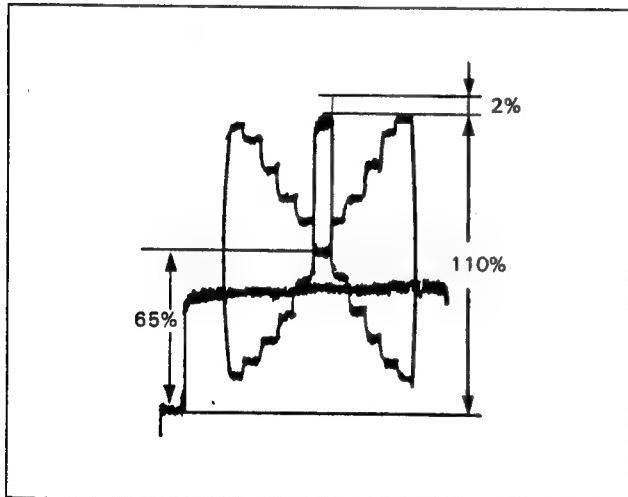


Fig. 1-7.

1-11. Y Level Adjustment

Instrument : Oscilloscope

Subject to be shot : 5100°K viewer, Gray scale

Adjusting VR : VR924 (Y_T2), VR926 (Y_T1), VR903 (YPD), VR911 (APL)

Setup :

- ① Shoot the gray scale for a standard size.
- ② Monitor Y OUT (CN912⑥) on the oscilloscope ($10\mu\text{s}/0.5\text{V}/\text{div}$).

Adjusting procedure :

- 1) Cap the lens and turn AGC off.
- 2) Adjust VR903 (YPD) for 5% setup level with respect to SYNC Ref.
- 3) Remove the lens cap and turn AGC ON.
- 4) Using VR926 (Y_T1), adjust the 6th level(center level) of grey scale so that it will be 48% of pedestal level on SYNC standard.

- 5) Using VR924 (Y_T2), adjust the peak level of gray scale so that it will be 75% of pedestal level on SYNC standard.
- 6) Turn AGC off. Adjust VR911 (APL) so that the overshoot occurring at the right of white waveform in the center of gray scale is 2% in SYNC base.

Notes :

1. The level (65%) set in step 4) may decrease during step 5). Leave the level as it goes down.
2. Make adjustment in step 6) with correct focusing.

1-12. Chroma Level Adjustment

Instrument : Oscilloscope, Monitor TV

Subject to be shot : Color bar chart

Adjusting VR : VR922 (BYG), VR923 (RYG), VR910 (HUE), VR920 (BTG), VR909 (HLS)

Setup :

- ① Shoot the color bar chart with $41\mu\text{s}$ size. (See Fig. 1-7.) (without white chart part)
- ② Set S9101 to the lower.
- ③ Turn AGC ON.
- ④ Monitor C OUT (CN912⑧) on the oscilloscope ($10\mu\text{s}/0.1\text{V}/\text{div}$).

Adjusting procedure :

- 1) Adjust VR920 (BTG) for 300mVp-p burst level.
- 2) Adjust VR922 (BYG) for 500mVp-p blue level. Adjust VR923 (RYG) for 650mVp-p red level.
- 3) Using VR910 (HUE), adjust color phase of red and magenta to the chart (visually to monitor TV).
- 4) Slightly lower yellow level with VR909 (HLS).

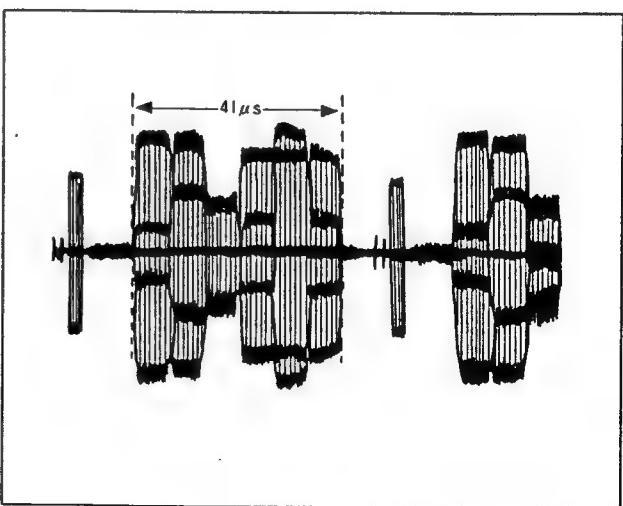


Fig. 1-8.

Note :

Should the burst level vary during color phase adjustment, readjust it.

1-13. Low-chroma Suppression Adjustment

Instrument : Oscilloscope

Subject to be shot : 5100°K viewer

Adjusting VR : VR912 (BCL)

Setup :

- ① Shoot the 5100°K viewer for full screen.
- ② Monitor C OUT (CN912 ⑧) on the oscilloscope (10μs/0.05V/div).

Adjusting procedure :

- 1) Adjust VR912 (BCL) so that the peak level of C OUT is 50mVp-p.

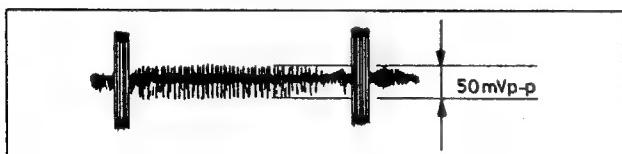


Fig. 1-9.

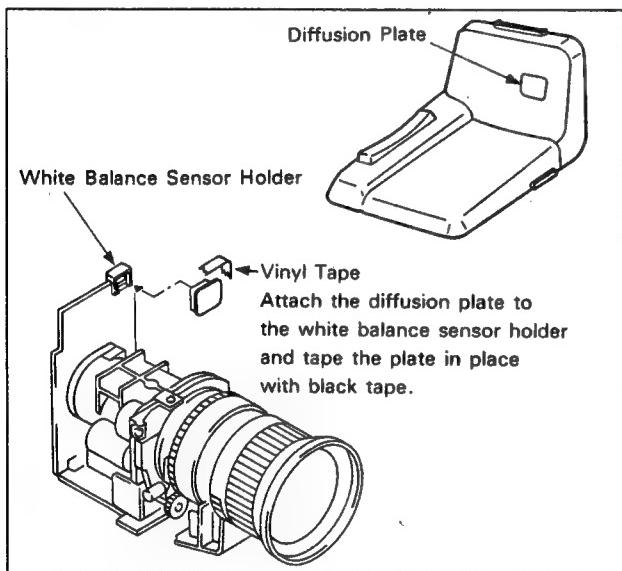


Fig. 1-10.

1-14. Sensor White Balance Adjustment

Instrument : Oscilloscope (Vector scope)

Subject to be shot : 5100°K viewer, Filter (LBA-

8) X2 (J-2)

Adjusting VR : VR919 (HLI), VR918 (SWO), VR917 (SWG)

Setup :

- ① Shoot the 5100°K viewer for full screen.
- ② Make the surroundings dark so that only light from the viewer enters the sensor.
- ③ Turn AGC ON.
- ④ Monitor TP902 (R-Y) and TP903 (B-Y) simultaneously on the oscilloscope (10μs/0.05V/div).
- ⑤ Set S9101 to the upper.
- ⑥ Remove the diffusion plate (white) from the cabinet and attach it to the white balance sensor.

Adjusting procedure :

- 1) Adjust VR915 (RWG) and VR916 (BWG) so

that the center of the waveform on TP902 and TP903 are on the blanking level.

- 2) Adjust VR919 (HLI) so that the level on TP907 (HLI) is high (approx. 5V).
- 3) Adjust VR918 (SWO) so that the center of the waveform on TP902 and TP903 are on the blanking level.
- 4) Cover the lens and sensor with their respective filters. Adjust VR917 (SWG) so that the center of the signals on TP902 and TP903 are nearly on the blanking level. If the VR cannot bring either of the signals to the center, readjust the VR so that R-Y is on the positive side and B-Y on the negative side.
- 5) Set the sensor illumination intensity to approx. 1,000 lux (equal to the intensity when the lens face is pressed directly against the 5100°K viewer.)
- 6) Adjust VR919 (HLI) so that TP907 decreases from +4.7V to 0V.
Do not overturn the VR.
- 7) Set the sensor illumination intensity to approx. 700 lux (equal to the intensity when the 5100°K viewer is placed approx. 5 cm apart from the lens face.)
- 8) Verify that TP907 returns to 4.7V.

1-15. Flange Back Adjustment

Instrument : Siemens star, Tools

Hexagonal wrench,

Flat head screwdriver

Adjusting procedure :

- 1) Using hexagonal wrench, loosen hexagonal socket screw on the rear of the lens.
- 2) Place subjects such as Siemens star at approx. 2m in front of the lens. Set focus ring for approx. 2m.
- 3) Set zoom to f=20 and adjust focus by turning adjuster screw with the screwdriver.
- 4) Set the zoom to full TELE and focus with the focus ring.
- 5) Repeat steps 3) and 4) for unchanged focus.
- 6) Tightly holding adjuster screw with the screwdriver, tighten hexagonal socket screw with the hexagonal wrench.

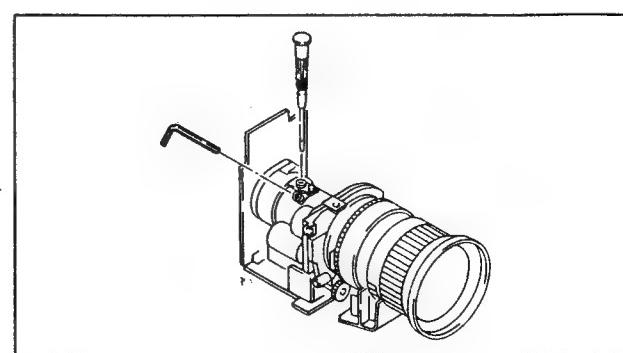


Fig. 1-11.

2. MECHANICAL ADJUSTMENTS

2-1. Cassette Mechanism (See Fig. 2-1.)

(1) Removal procedure

- 1) Remove screws ① (2 pcs) then damper ②.
- 2) Remove Washers ③ (2 pcs) then pins ④ (2 pcs).
- 3) Slide rollers out ⑤ (2 pcs).

(2) Reinstallation procedure

- 1) Insert rollers ⑤ (2 pcs) into slots ⑥ (2 pcs) respectively in the reel chassis.
- 2) Inserts pins ④ (2 pcs) into holes ⑦ and slide Washer ③ (2 pcs) onto pins ④.
- 3) Attach damper ② and tighten screws ① (2 pcs).

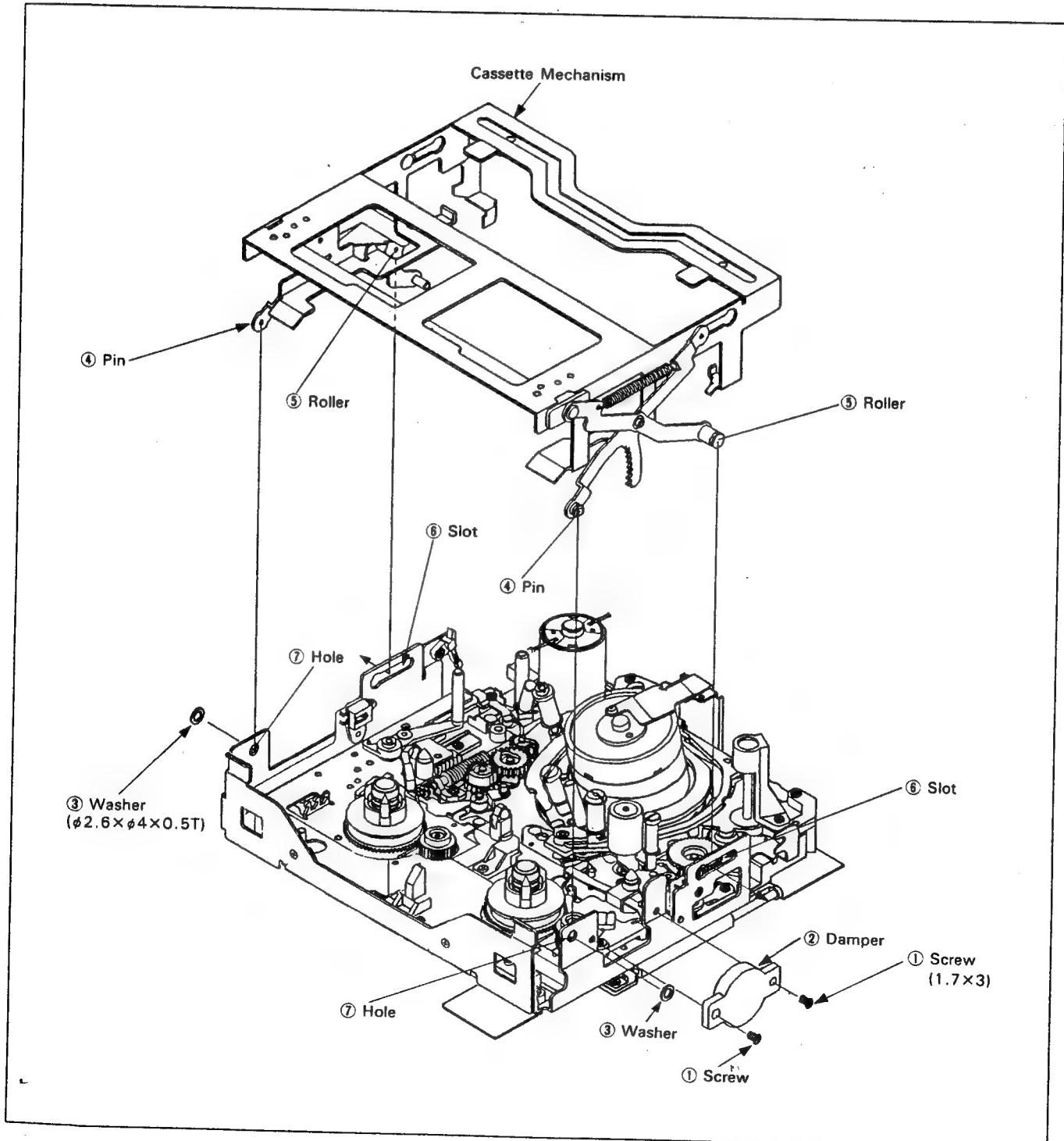


Fig. 2-1.

2-2. Removing Tape Loaded Cassette (See Fig. 2-2.)

- 1) Open the PC board at the rear of the main chassis.
- 2) Referring to para 2-4., connect the mode selector to FPC PC board.
Note : One of boxed " [] " modes shown in Section 2-4. is selectable by a button. (See Fig. 2-5.)
- 3) In **STAND BY** mode move each tape guide, by a small amount at a time.

- 4) Using a cotton tipped applicator, rotate the rotor of capstan motor ① in the direction of the arrow to wind the tape loop around a cassette reel. (See Fig. 2-3.)
- 5) Repeat steps 2) and 3) until all the tape is wound up. Select **EJECT** mode and remove the cassette.

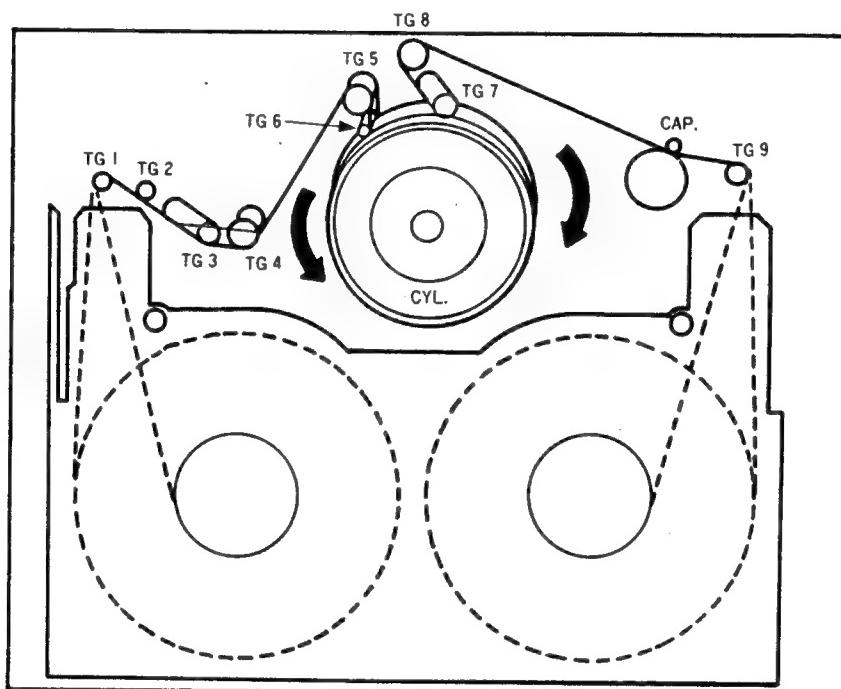


Fig. 2-2.

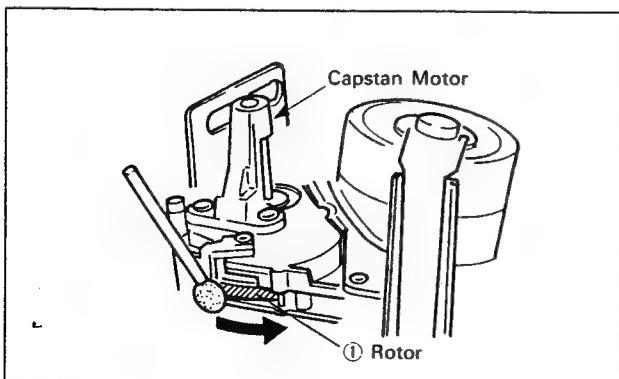


Fig. 2-3.

2-3. Operating Detached Cassette Mechanism

(1) Loading a tape (See Fig. 2-4.)

- 1) Supply power to the mechanism with the cabinet and camera disconnected to activate the mechanical deck.
- 2) Cover tape end sensors ① (2 pcs) with black tape ②.
- 3) Pressing down pins on push SW ③ (ON), secure the pins with adhesive tape ④.
- 4) Press cassette SW ⑤ in the direction of the arrow and the mechanism enters the loading mode.

(2) Putting into recording mode.

- 1) After completing steps in (1) "Loading a tape", turn the power SW on.
- 2) Short together TP301 and 302 of SY1 PC board.
- 3) Turn REC SW on.

(3) Ejecting cassette.

- 1) Turn EJECT SW on.

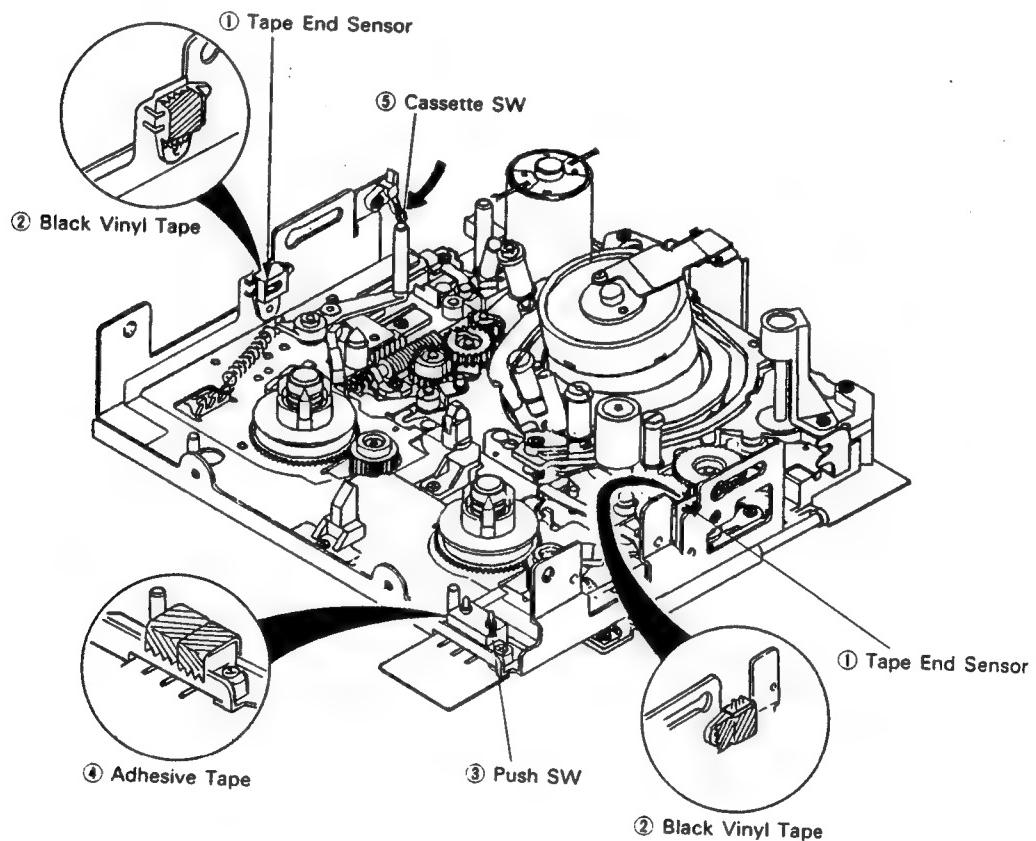
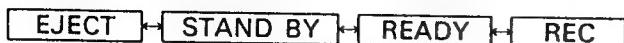


Fig. 2-4.

2-4. Connecting & Operating Mode Selector

This mechanism operates in one of four modes which should be selected as required in a removal step.



1) EJECT mode

Simulates a condition under which unloading SW is being pressed and the motor is in stop mode (motor lock).

2) STANDBY mode

Simulates a condition under which the loading SW is being tapped repeatedly at shorter intervals in EJECT mode. S and T shuttles (TG5,8) begin to move.

3) REC mode

Simulates a condition under which the loading SW is being pressed and the motor is in stop mode (motor lock).

Note :

READY mode is similar to REC mode except that the pinch roller is disengaged : Select REC mode before entering the READY mode.

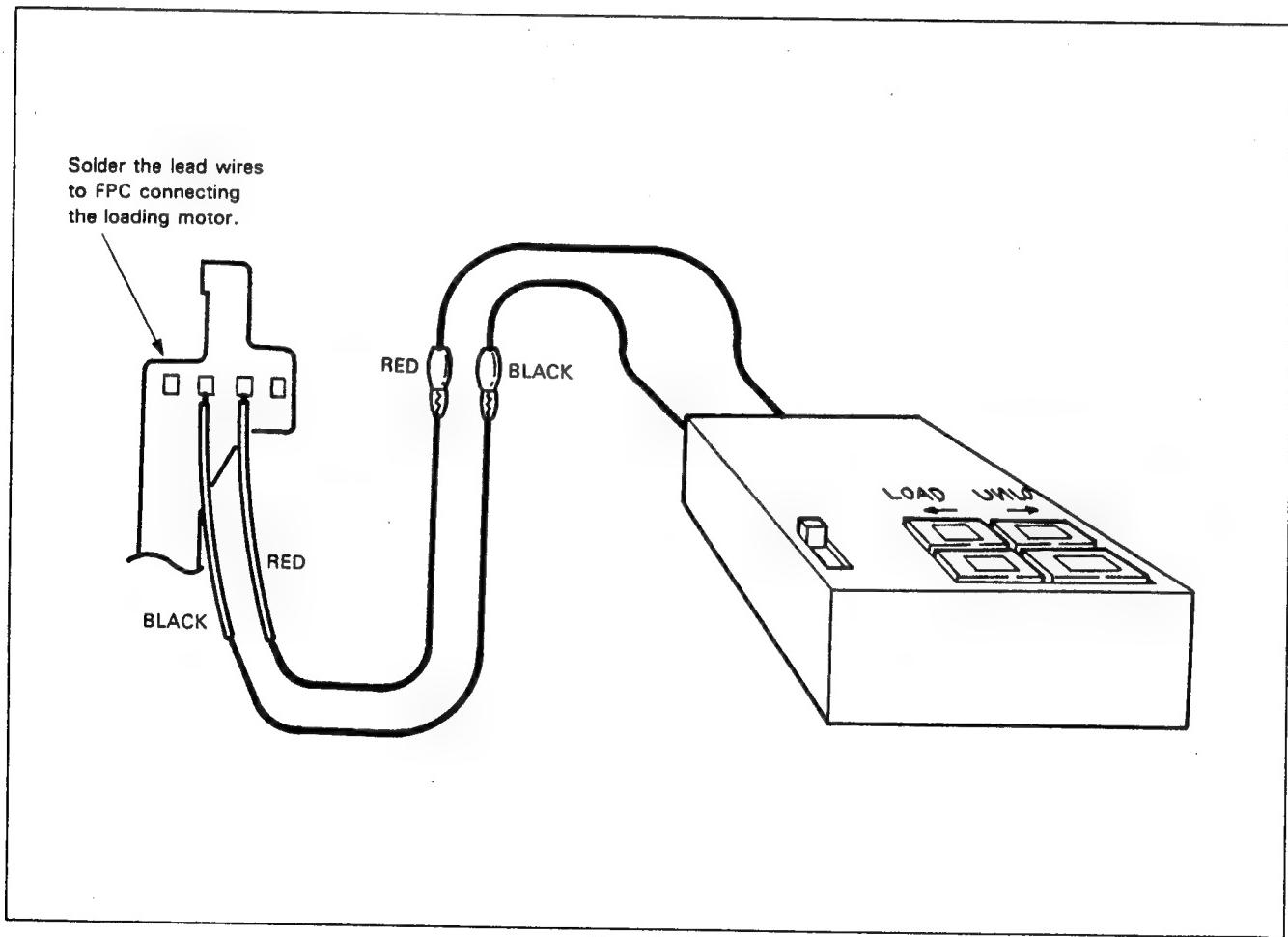


Fig. 2-5.

2-5. Periodic Check and Maintenance

- To keep the set at top performance with satisfactory functioning parts including the tape, perform the following maintenance and check steps periodically. Also follow the following procedure after any repair work regardless of operating time.

2-5-1. Cleaning cylinder

- Lightly pressing a chamois leather (Ref. No. J-2) dampened with cleaning fluid (Ref. No. J-1), rotate the upper cylinder slowly in a counter-clockwise direction using your finger.

Notes : Do not turn the motor. Do not rotate the cylinder clockwise. Do not move the chamois leather vertically across the headtip. The headtip may be damaged. Follow the procedure described above.

2-5-2. Cleaning tape transporting system (See Fig. 2-6.)

- In EJECT mode, clean tape transport system (TG-1, 2, 3, 4, 5, 6, 7, 8, 9, pinch roller and capstan shaft) with chamois leather be in dampened with a cleaning fluid.

Note : Be sure not to let the chamois leather be in contact with any oil or grease of the links.

2-5-3. Cleaning driving system

- Clean the driving system (reel base top) with a cloth dampened with a cleaning fluid.

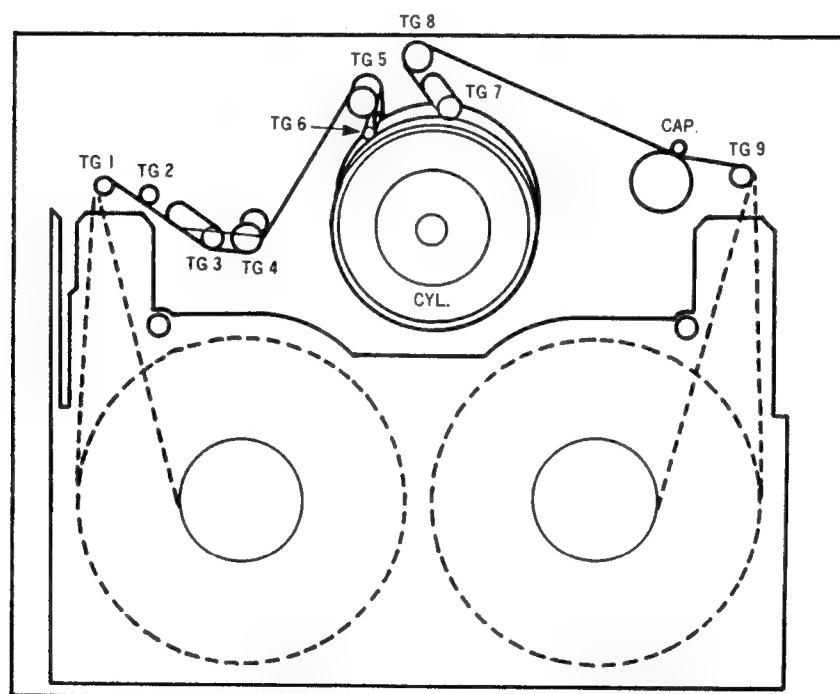


Fig. 2-6.

2-5-4. Items to be checked periodically

Maintenance and check	Operating time (Hours)											Remarks
	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000		
	Cleaning of tape running faces	○	○	○	○	○	○	○	○	○	○	Keep oil-free
	Cleaning and degaussing of cylinder assy	○	○	○	○	○	○	○	○	○	○	Keep oil-free
Driving system	Capstan shaft	-	◎	-	◎	-	◎	-	◎	-	◎	Do not allow oil to be in contact with surfaces of the tape running system.
	Loading motor	-	☆	-	☆	-	☆	-	☆	-	☆	
Performance verification	Abnormal sound	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	
	Back tension measurement	-	☆	-	☆	-	☆	-	☆	-	☆	
	Brakings	-	☆	-	☆	-	☆	-	☆	-	☆	
	FWD & RVS torque measurement	-	☆	-	☆	-	☆	-	☆	-	☆	

○ Cleaning ◎ Lubrication ☆ Verification

Note : During overhaul, replace parts as required referring to the above table.

Notes : Oil considerations

- Do not apply oils other than those specified. Oil with viscosity different from the standard may cause problems.
Standard oil ... Maruzen oil Swafluid 100N (commercially available)
- Use only clean oil for bearings. Oil containing dust may lead to frozen shaft or worn shaft.
- A drop of oil is the amount of oil collecting on a 2mm dia rod tip as shown in Fig. 2-7.

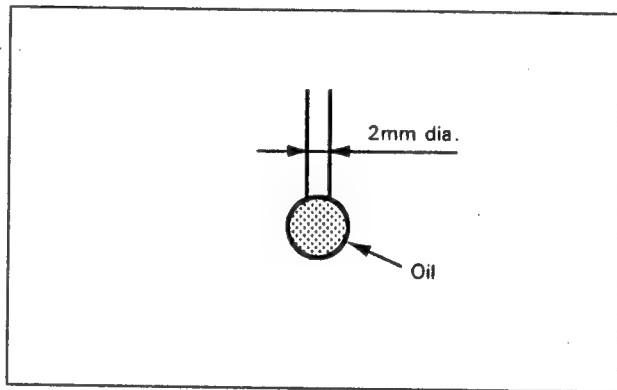


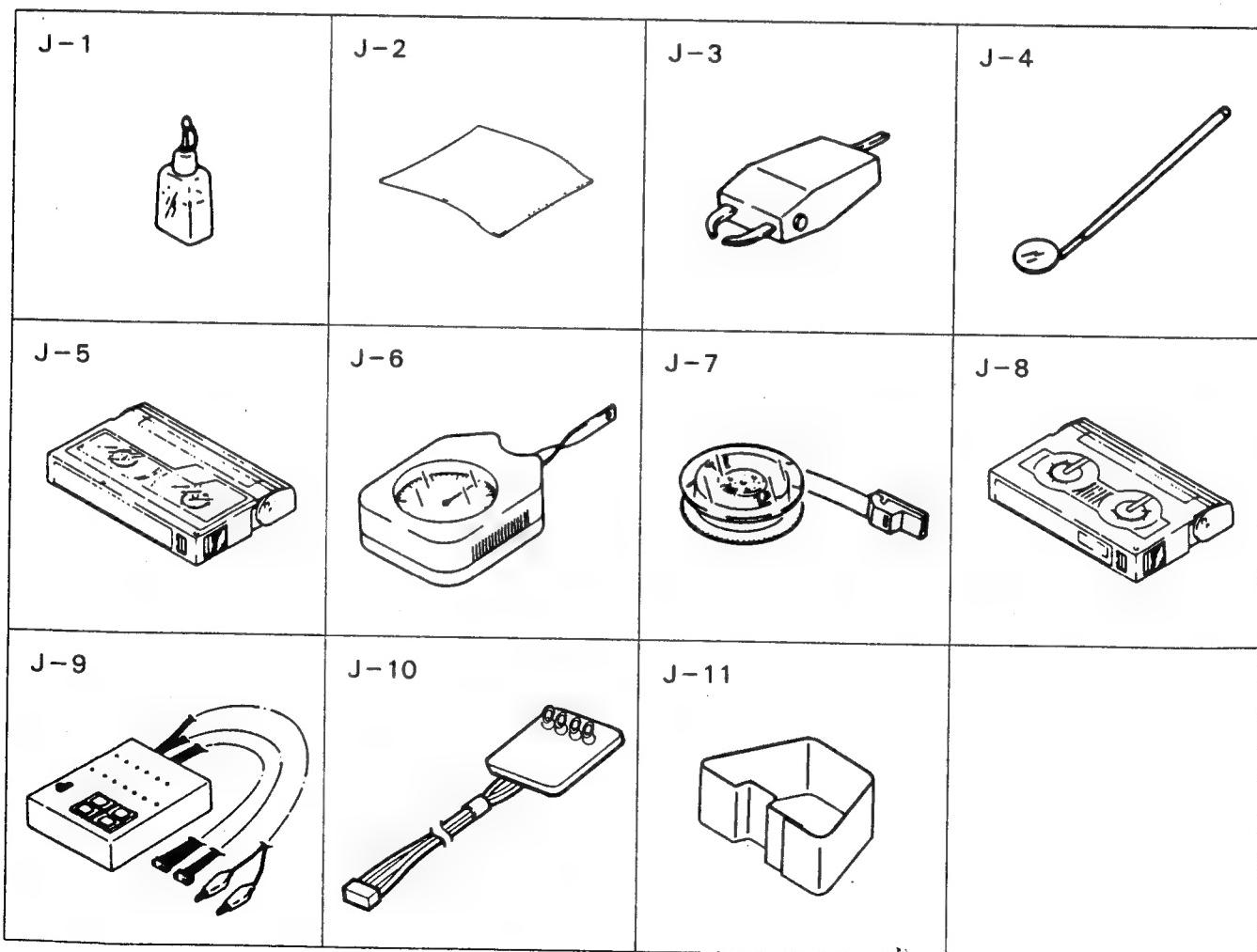
Fig. 2-7.

2-5-5. Service jig list

Ref. No.	Name	Part Code	Mark Engraved on Tool	Application, etc.
J - 1	Cleaning fluid	Y-2031-001-0	—	
J - 2	Chamois leather	2-034-697-00	—	
J - 3	Head demagnetizer	Commercially available	—	
J - 4	Dental Mirror Spare Mirror	J-6080-029-A J-6080-030-1	SL-5052	Tape Path
J - 5	Alignment Tape (WR5-1C)	8-967-995-06		Tape Path
J - 6	Dial Tension Gauge	J-6080-827-A		Torque Measurements
J - 7	Tension Measuring Reel	J-6080-831-A		With ø 30 tape
J - 8	FWD, RVS Takeup Torque Cassette	J-6080-824-A	GD-2086	
J - 9	Mode Selector	J-6080-825-A		General
J - 10	Tape Path Extension Cord	VJ8-0067		Tape Path
J - 11	FPC Removal Tool	VJ8-0059		

Other instruments required

- Oscilloscope
- Analog tester (20KΩ)



2-6. Checking, Adjusting and Replacing Mechanical Section

2-6-1. S reel base ASSY (See Fig. 2-8.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1.
- 2) Remove Washer ① then gear ASSY ②.
- 3) Remove screw ③ and release BT band ASSY ④ at this end.
- 4) Remove S reel base ASSY ⑤.

Note : Remove S reel base ASSY ⑤ on claws *.
(The same applies during reinstallation.)

(2) Reinstallation procedure

- 1) Apply 1/3 ~ 1/2 drop of Swafluid oil onto the shaft ⑥ shown by the arrow in Fig. A.
- 2) Mount S reel base ASSY ⑤ on shaft ⑥.
- 3) Secure BT band ASSY ④ with screw ③.
- 4) Mount gear ASSY ② on shaft ⑦ and tighten Washer ①.
- 5) Reinstall the cassette mechanism referring to Section 2-1.

Notes : Check the reel base height referring to para 2-6-18.

Adjust BT lever position referring to para 2-6-20.

Adjust FWD back tension referring to para 2-6-21.

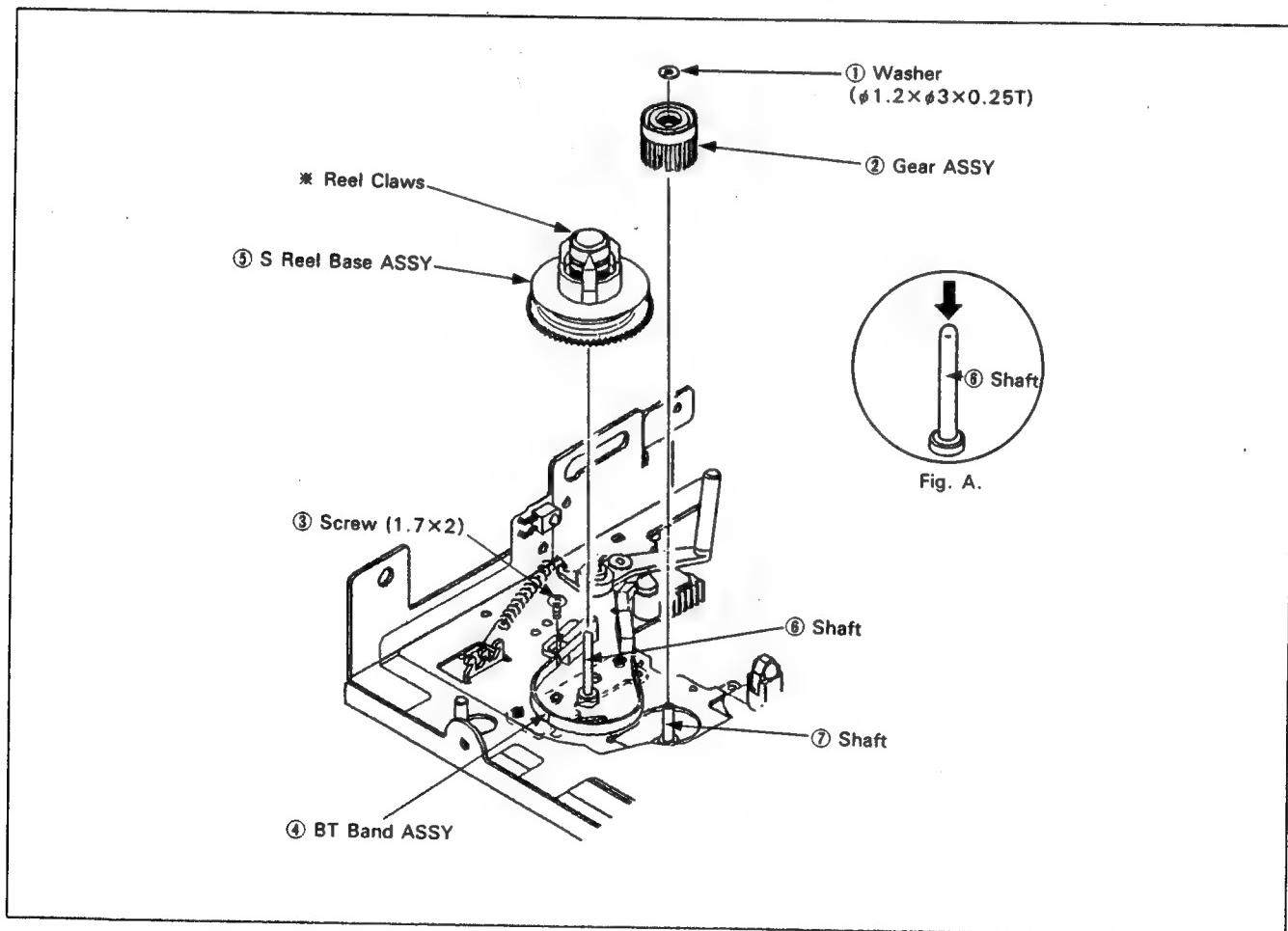


Fig. 2-8.

2-6-2. T reel base ASSY (See Fig. 2-9.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1.
- 2) Remove tension coil spring ①.
- 3) Remove Washer ② and soft brake ASSY ③.
- 4) Remove Washer ④ and gear ASSY ⑤.
- 5) Remove T reel base ASSY ⑥.

Notes : 1. Remove T reel ASSY ⑥ on claws *. (The same applies during reinstallation.)
2. Rotating slightly soft brake ASSY ③ clockwise (without removing) allows easier removal of T reel ASSY ⑥.

(2) Reinstallation procedure

- 1) Apply 1/3 ~ 1/2 drop of Swafuild oil onto shaft ⑦ as shown by the arrows in Fig. A.
- 2) Mount T reel base ASSY ⑤ on the shaft ⑦.
- 3) Mount gear ASSY ⑤ on the shaft ⑧ and secure with Washer ④.
- 4) Engage soft brake ASSY ③ with shaft ⑨ and slot ⑩ and secure them with Washer ②.
- 5) Referring to Fig. B, attach tension coil spring ①.
- 6) Referring to Section 2-1, reinstall the cassette mechanism.

Note : Check reel base height referring to para 2-6-18.

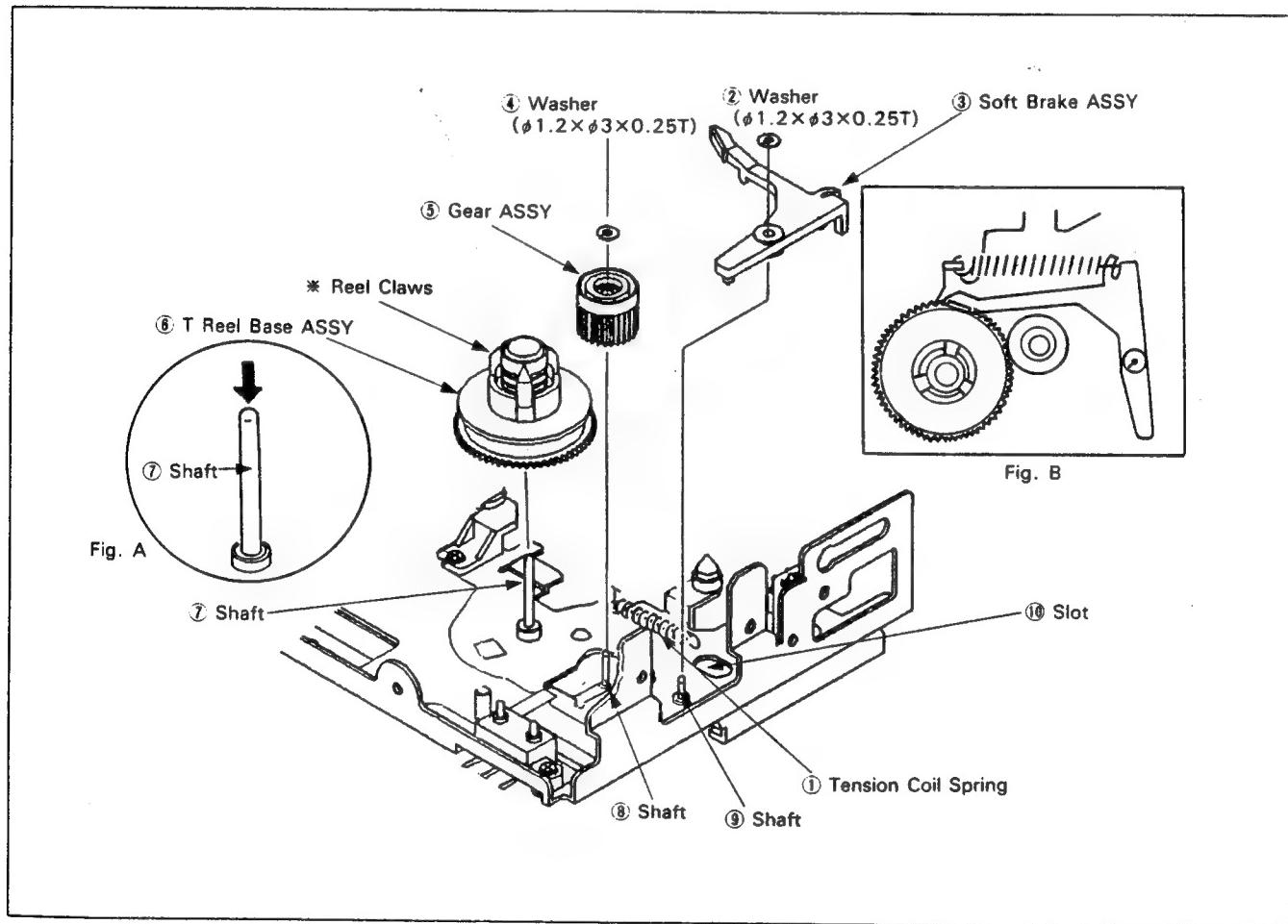


Fig. 2-9.

2-6-3. Pinch roller & lever ASSY (See Fig. 2-10.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1.
- 2) Remove screw ① then sensor bracket ②.
- 3) Remove Washer ③ then pinch lever ASSY ④ and pull-out guide ASSY ⑤.

Note : Do not touch roller *.

(2) Reinstallation procedure

- 1) Mount pull-out guide ASSY ⑤ on the shaft ⑥.
- 2) Insert pin A of pinch lever ASSY ④ into hole B of the pinch pressure slider ⑦ and slide hole C of pinch lever ASSY ④ onto the pin D of pull-out guide ASSY ⑤. This should insert pinch lever ASSY ④ into shaft ⑧. Secure them with Washer ③.
- 3) Install sensor bracket ② and tighten screw ①.
- 4) Reinstall the cassette mechanism, referring to Section 2-1.

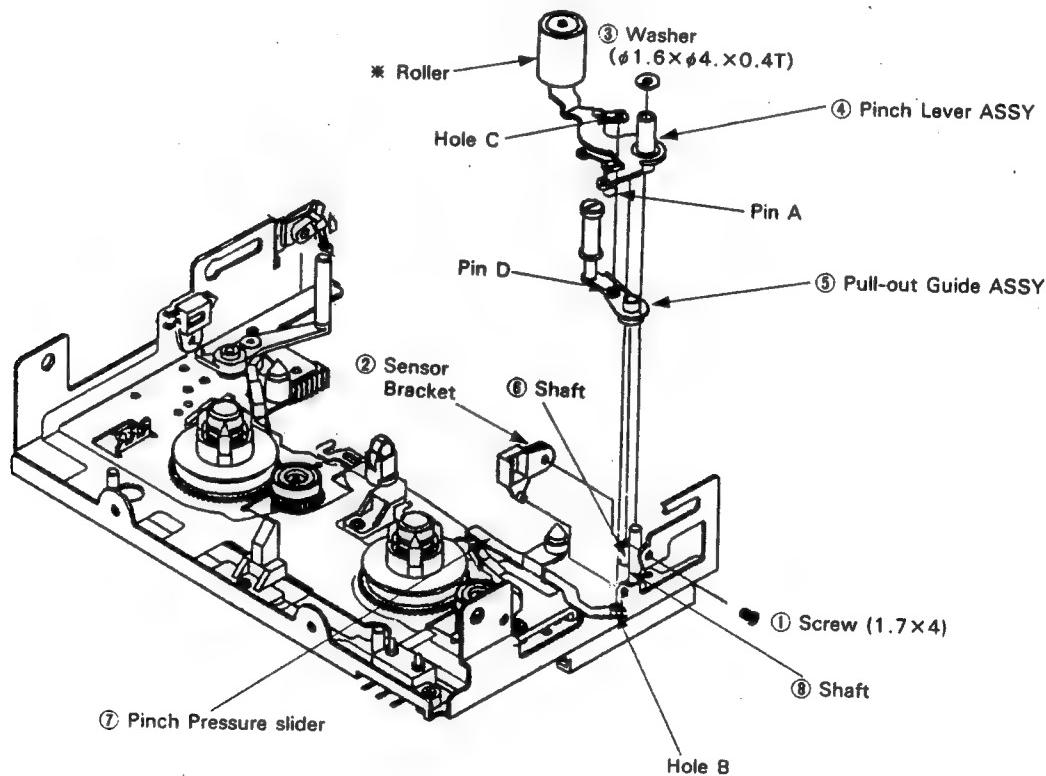


Fig. 2-10.

2-6-4. Back tension lever ASSY

(1) Removal procedure (See Fig. 2-11, 12.)

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Remove screw ⑫ in Fig. 2-12 and release BT band ASSY ⑯ at this end.
- 3) Remove tension coil spring ② on BT lever ASSY ①.
- 4) Remove screw ③. Slide slightly the slide bearing ④ in the direction of the arrow and separate the reel chassis from the main chassis. (Flexible PCB can be left attached.)
- 5) Turn the reel chassis over and remove Washer ⑤ at the back of the chassis then remove BT lever ASSY ①.

Note : Do not handle BT band ASSY ⑯ with hand. Be careful not to bend the band.

(2) Reinstallation procedure (See Fig. 2-12.)

- 1) Insert pin ⑧ of BT lever ASSY ① into hole ⑦ of BT band ASSY ⑯.
- 2) Insert pin ⑨ into shaft ⑩ of the reel chassis and pin ⑧ into slot ⑪, respectively.
- 3) Secure pin ⑨ of BT lever ASSY ① with Washer ⑤ on the rear of the chassis.
- 4) Secure BT band ASSY ⑯ with screw ⑫.
- 5) Mount the reel chassis to the main chassis, referring to para 2-6-6.
- 6) Install tension coil spring ②, referring to Fig. 2-11.
- 7) Install the cassette mechanism, referring to Section 2-1.

Note : Do not handle BT band ASSY ⑯ with hand. Be careful not to bend the band.

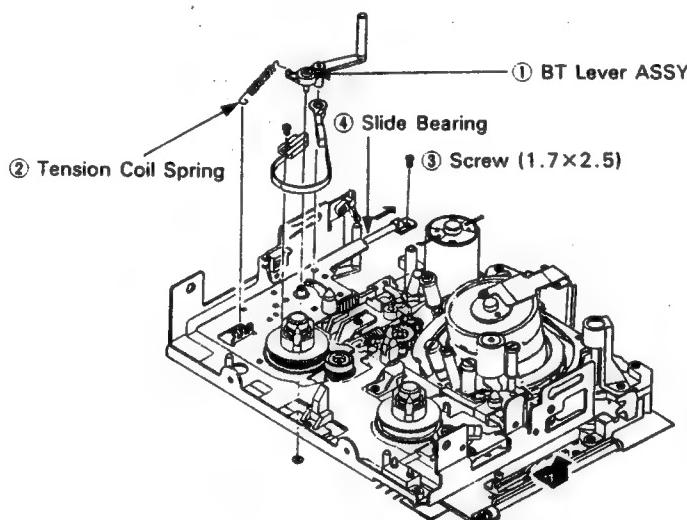


Fig. 2-11.

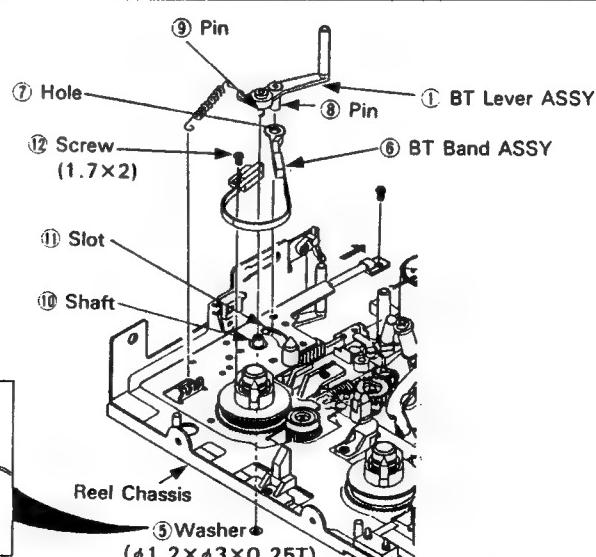


Fig. 2-12.

2-6-5. Idler gear ASSY (See Fig. 2-13.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Separate the reel chassis from the main chassis, referring to para 2-6-4, step 4).
- 3) Remove Washer ①. Remove idler gear ASSY ② and gear ③.

(2) Reinstallation procedure

- 1) Mount shaft ④ on gear ③. Mount boss ⑤ of idler gear ASSY ② onto shaft ④ and boss ⑥ into slot ⑦. Secure them with Washer ①.
- 2) Install the reel chassis on the main chassis, referring to para 2-6-6.
- 3) Mount the cassette mechanism, referring to Section 2-1.

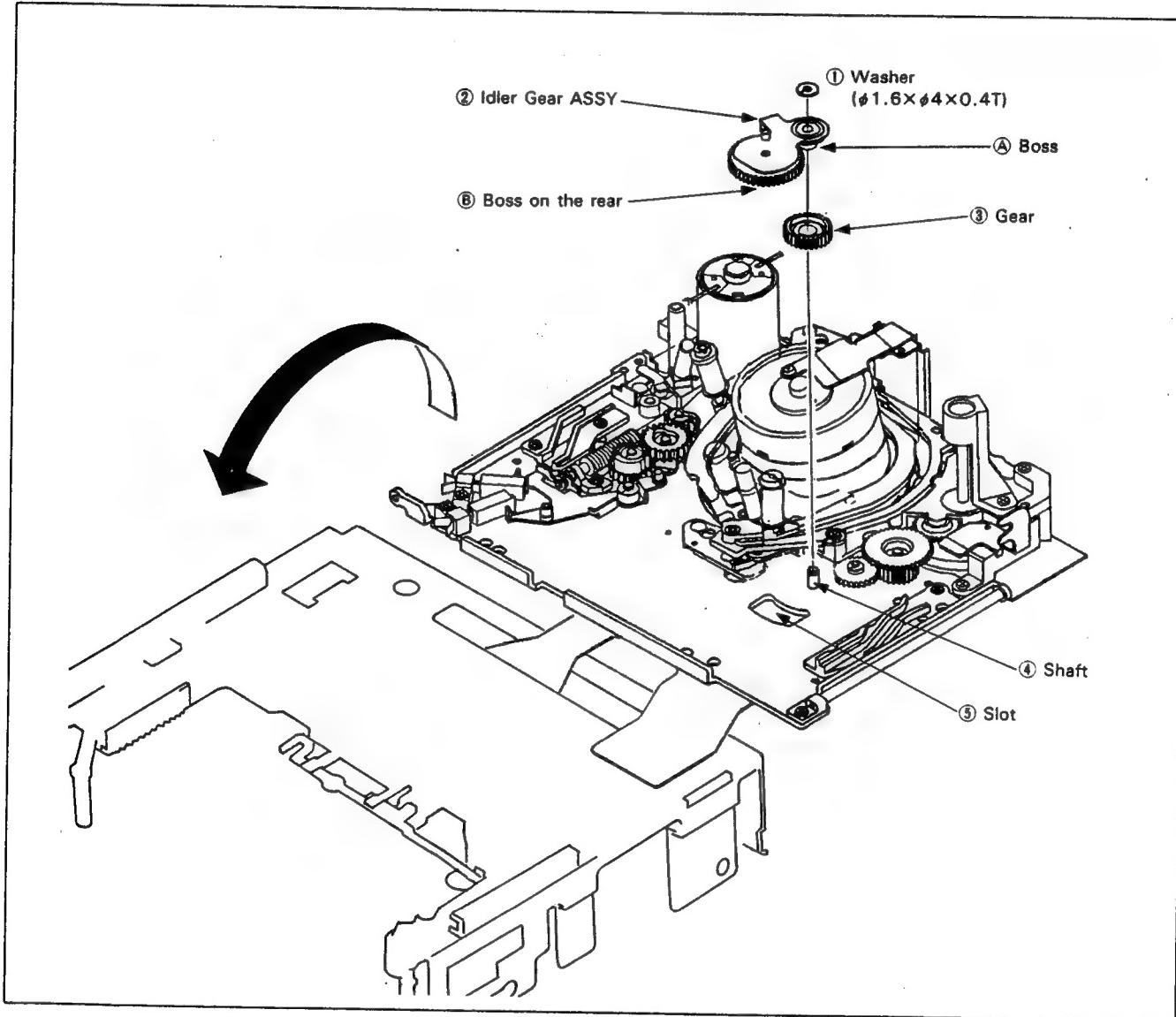


Fig. 2-13.

2-6-6. Phase matching during installation of reel chassis on main chassis (See Figs. 2-14 and 2-15.)

- 1) Select **STAND BY** mode.
- 2) Position the mode lever ① so that its "bent" part shown in Fig. 2-14 is parallel with a line from T reel shaft to S reel shaft.
- 3) Mesh the first tooth of the rack ② of the reel chassis with the same groove of worm gear with which the third tooth of gear A ③ (lower) engages.
- 4) While meshing reel support bracket ④ with support shaft ⑤, engage cam followers of BT lever and TG9 lever with the cam of main chassis. (See Fig. 2-15.)
- 5) Insert support shaft ⑥ into reel chassis support bracket ⑦ and secure them with screw ⑧.

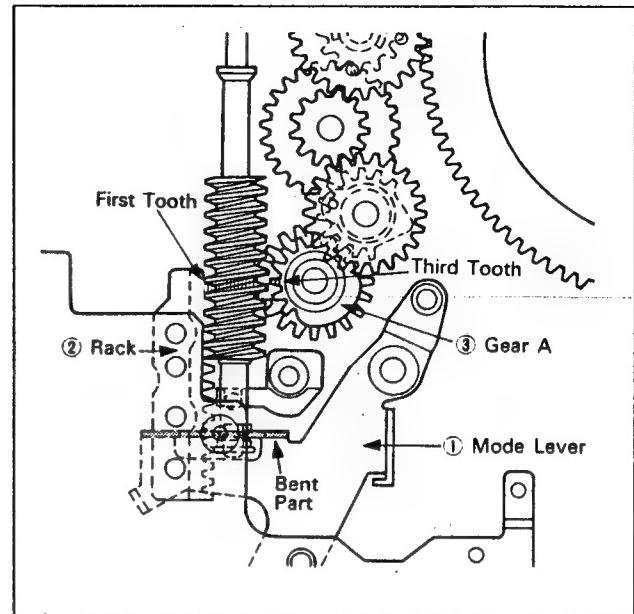


Fig. 2-14.

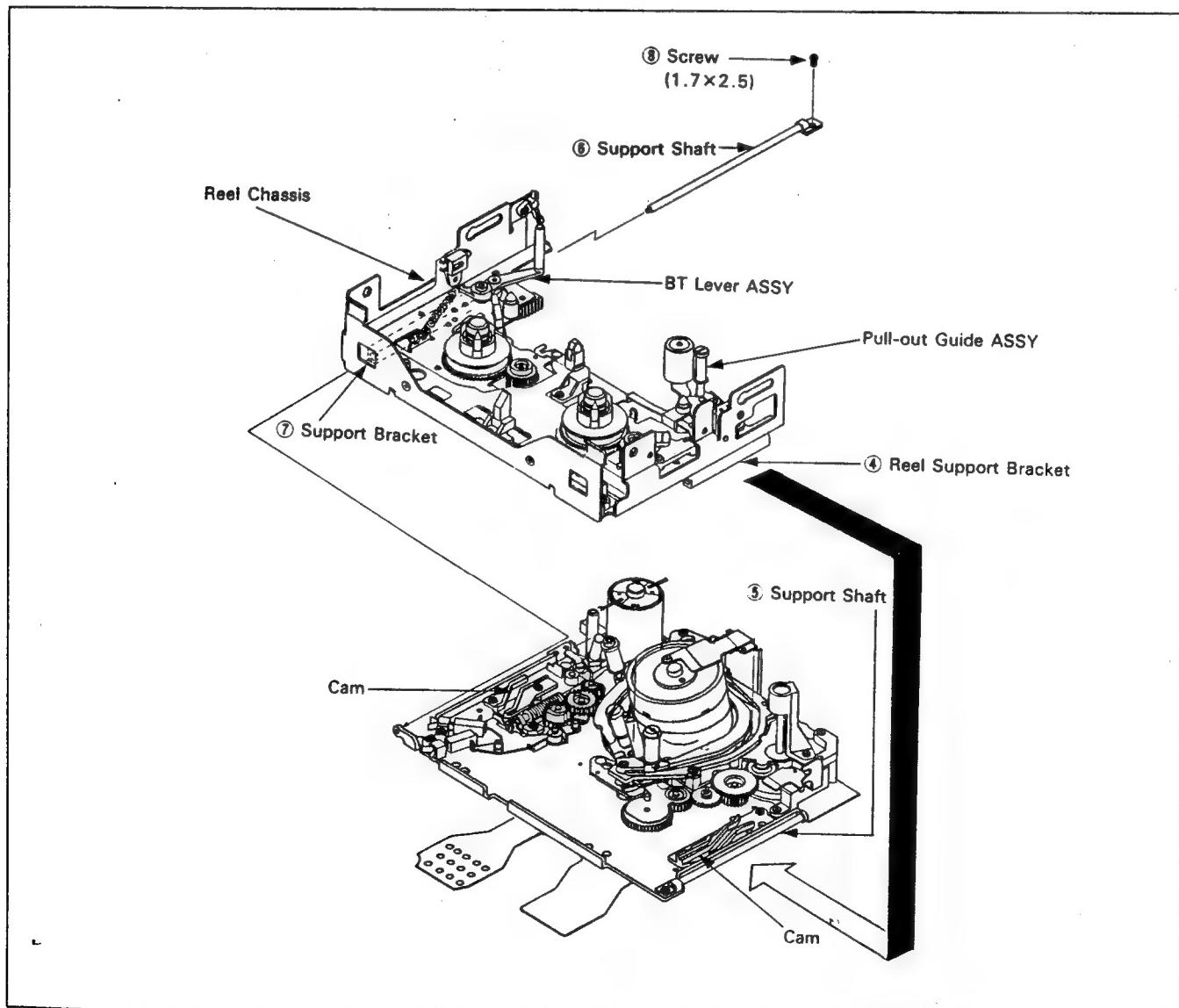


Fig. 2-15.

2-6-7. Pinch pressure slider (See Fig. 2-16.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Remove pinch lever ASSY ① and pull-out guide ASSY ②, referring to para 2-6-3.
- 3) Slide pinch pressure slider ③ in the direction of the arrow and remove pin ⑤ from slot ④.

(2) Reinstallation procedure

- 1) Attach pinch pressure slider ③ as shown in Fig. A.
- 2) Referring to para 2-6-3, attach pinch lever ASSY ① and pull-out guide ASSY ②.
- 3) Referring to Section 2-1, reinstall the cassette mechanism.

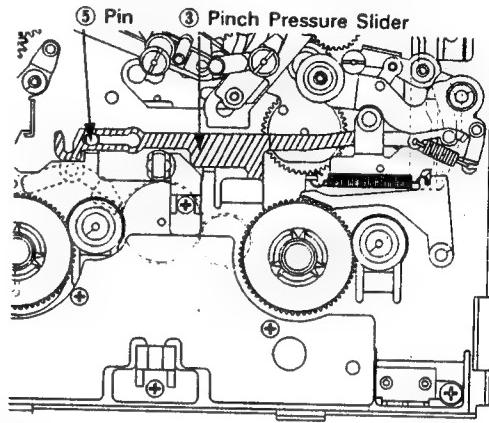


Fig. A

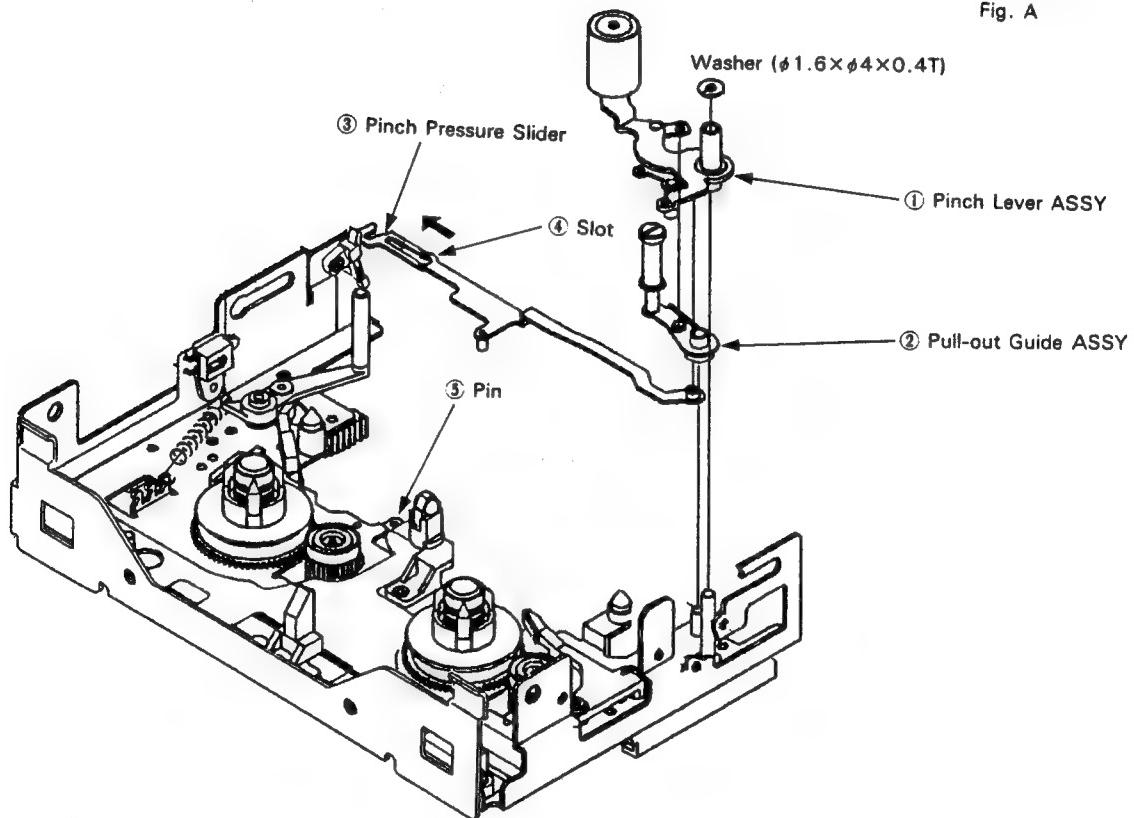


Fig. 2-16.

2-6-8. S shuttle ASSY (See Fig. 2-17.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Referring to para 2-6-15, remove the cylinder base.
- 3) Referring to para 2-6-14, remove TG4.
- 4) Remove screws ②, ③ and ④ that secure rail ① and separate it from the cylinder base.
- 5) Remove pin ⑥ S shuttle ASSY ⑤, plate ⑦ and link ⑧ from the rail ①.

(2) Reinstallation procedure

- 1) Insert S shuttle ASSY ⑤ into rail ① and turn the assembly over.
- 2) Referring to Fig. A, engage plate ⑦ with boss ⑨ of S shuttle ASSY ⑤, place link ⑧ on plate ⑦ and secure them with pin ⑥.
- 3) Place rail ① on the cylinder base and secure it with screws ②, ③ and ④.
- 4) Referring to para 2-6-14, attach TG4 to shaft ⑩.
- 5) Verify smoothness of the movement of S shuttle ASSY ⑤. Referring to para 2-6-15, reinstall the cylinder base.
- 6) Referring to Section 2-1, reinstall the cassette mechanism.

Note : Be careful not to scratch the cylinder with a screw driver during the following steps.

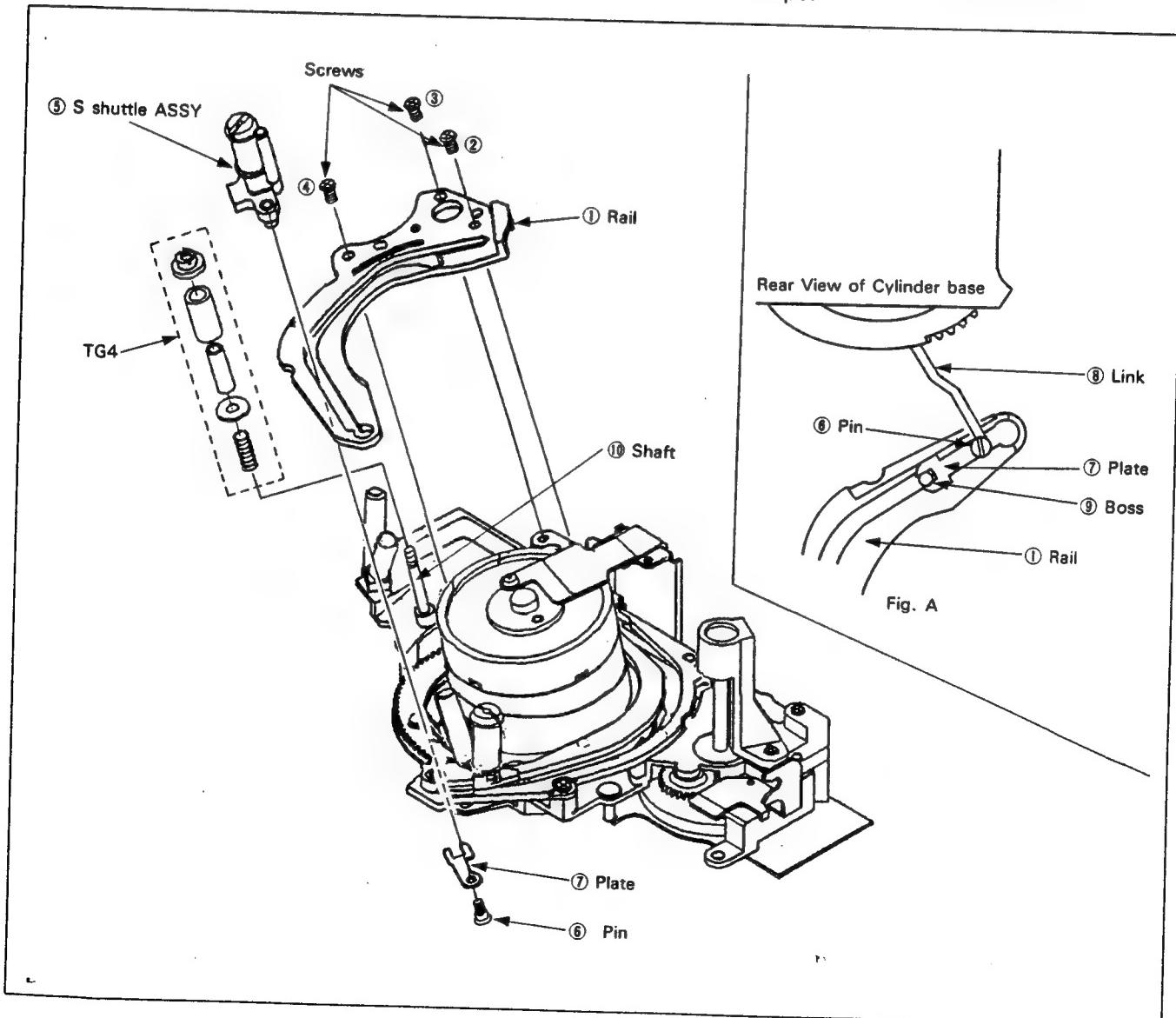


Fig. 2-17.

2-6-9. T shuttle ASSY (See Fig. 2-18.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (**EJECT** mode.)
- 2) Referring to para 2-6-15, remove the cylinder base.
- 3) Referring to Fig. A, remove screw ② then plate ③, link ④ and T shuttle ASSY ① from the cylinder base.

(2) Reinstallation procedure

- 1) Insert T shuttle ASSY ① into rail ⑤ and turn the assembly over.
- 2) Referring to Fig. A, engage plate ③ with boss ⑥ ; place link ④ on T shuttle ASSY ① and tighten screw ②.
- 3) Verify the smoothness of movement of T shuttle ASSY ①. Referring to para 2-6-15, reinstall the cylinder base.
- 4) Referring to Section 2-1, reinstall the cassette mechanism.

Note : Be carefull not to scratch the cylinder with a screw driver during the following procedure.

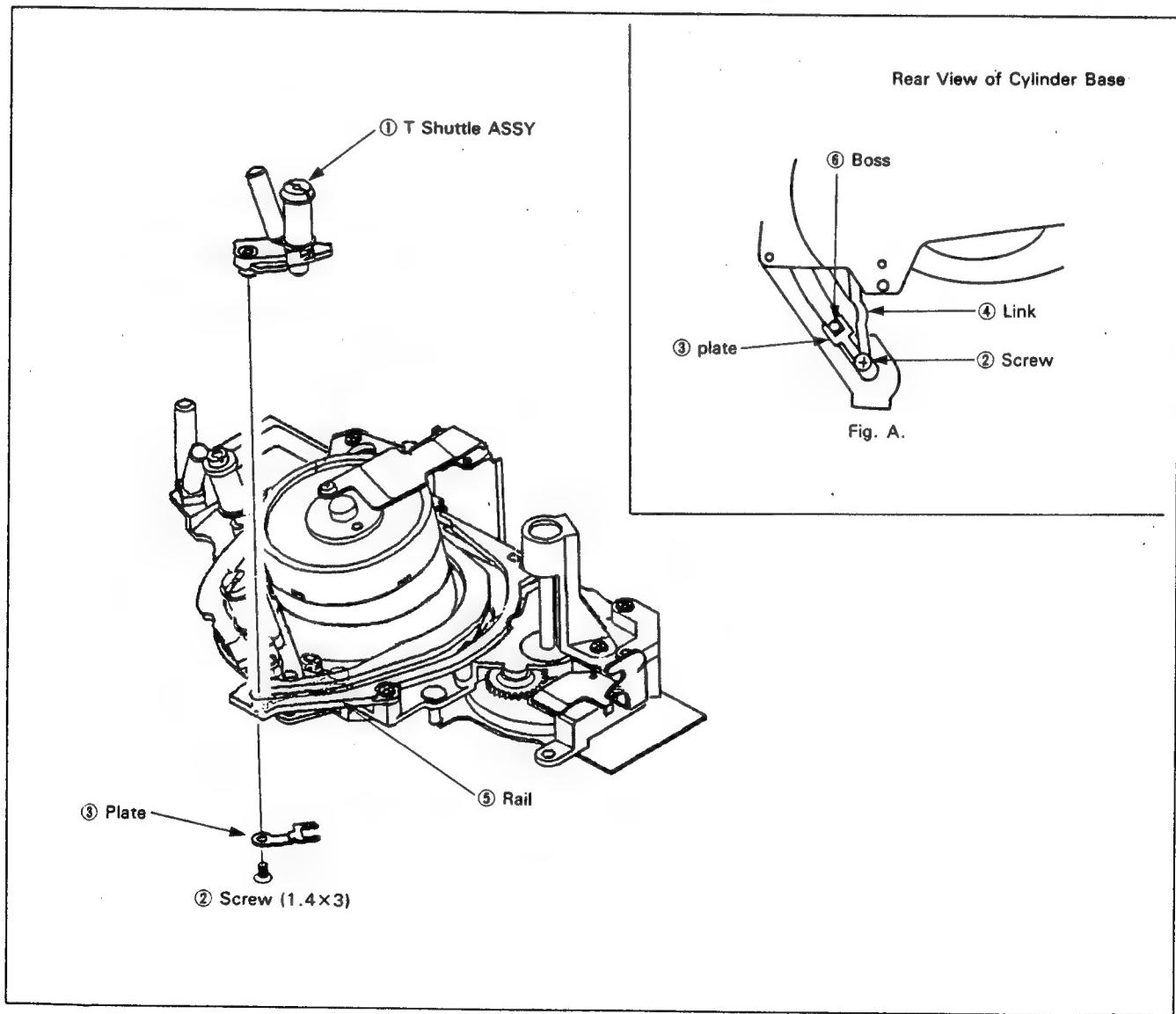


Fig. 2-18.

**2-6-10. Loading ring ASSY T and S
(See Fig. 2-19.)**

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Referring to para 2-6-15, remove the cylinder base.
- 3) Referring to para 2-6-17, remove the cylinder.
- 4) Referring to para 2-6-8, remove S shuttle ASSY and S rail.
- 5) Referring to para 2-6-9, remove T shuttle ASSY.
- 6) Remove sleeve ① and screw ② then T rail ③.
- 7) Remove E ring ④, roller ⑤, S loading ring ASSY ⑥, roller ⑦, T loading ring ASSY ⑧, E ring ⑨, roller ⑩, E ring ⑪, roller ⑫, and roller ⑬ in this order.

(2) Reinstallation procedure

- 1) Install roller ⑬, roller ⑫, E ring ⑪, roller ⑩, E ring ⑨, T loading ring ASSY ⑧, roller ⑦, S loading ring ASSY ⑥, roller ⑤, E ring ④ in this order.
- 2) Place T rail ③ on shaft ⑭; tighten screws ② (2 pcs) and fix sleeve ①.
- 3) Referring to para 2-6-9, replace T shuttle ASSY.
- 4) Referring to para 2-6-8, replace S shuttle ASSY and S rail.
- 5) Referring to para 2-6-17, replace the cylinder.
- 6) Referring to para 2-6-15, replace the cylinder base.
- 7) Referring to Section 2-1, replace the cassette mechanism.

Note : Before attaching T rail, verify the smoothness of movement of S and T loading ring ASSY's ⑥ and ⑧ and rollers ⑤, ⑦, ⑩, ⑫ and ⑬.

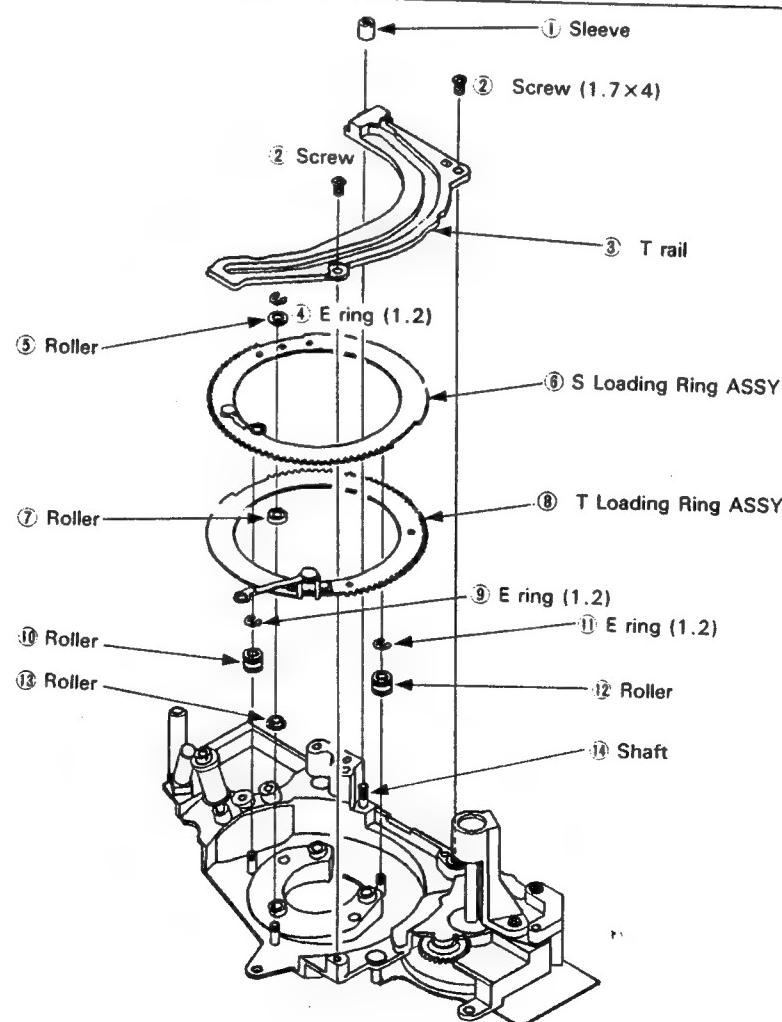


Fig. 2-19.

2-6-11. Flexible PC board (Reel chassis) (See Fig. 2-20)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Remove the blind covering flexible PC board ①.
- 3) Unsolder ② on flexible PC board ① (Following the procedure described in the next page : Soldering Considerations. Use the JIG VJ8-0059.)
Also unsolder cassette SW ③ held by the reel chassis.
- 4) Referring to para 2-6-4, remove the reel chassis from the main chassis.
Remove the flexible PC board ⑥ that is soldered at ②.
- 5) Remove screwed tape end sensor brackets ④ and ⑤.
- 6) Remove screws securing push SW ⑦ and tape end sensor bracket ASSY ⑧; remove flexible PC board ①.

(2) Reinstallation procedure (After replacing parts)

- 1) Curl flexible PC board ⑨ as shown in Fig. A and solder the parts the PC board.
- 2) Peel off the back tape of the PC board and attach it across reel shafts ⑩ and ⑪.
- 3) Screw tape end sensor brackets ④ and ⑤, and tape end sensor bracket ASSY ⑧.
- 4) Insert dimples and dowels into the back of SW ⑦ and screw it.
- 5) Solder the cassette SW as shown in Fig. B.
- 6) Place flexible PC board ⑥ on flexible PC board ①. Using the JIG VJ8-0059 (see Soldering Considerations on the next page), apply solder generously onto the PC board.
- 7) Referring to para 2-6-6, attach the reel chassis to the main chassis.
- 8) Referring to Section 2-1, install the cassette mechanism.

Note : Perform soldering in 5 seconds at 260°C.

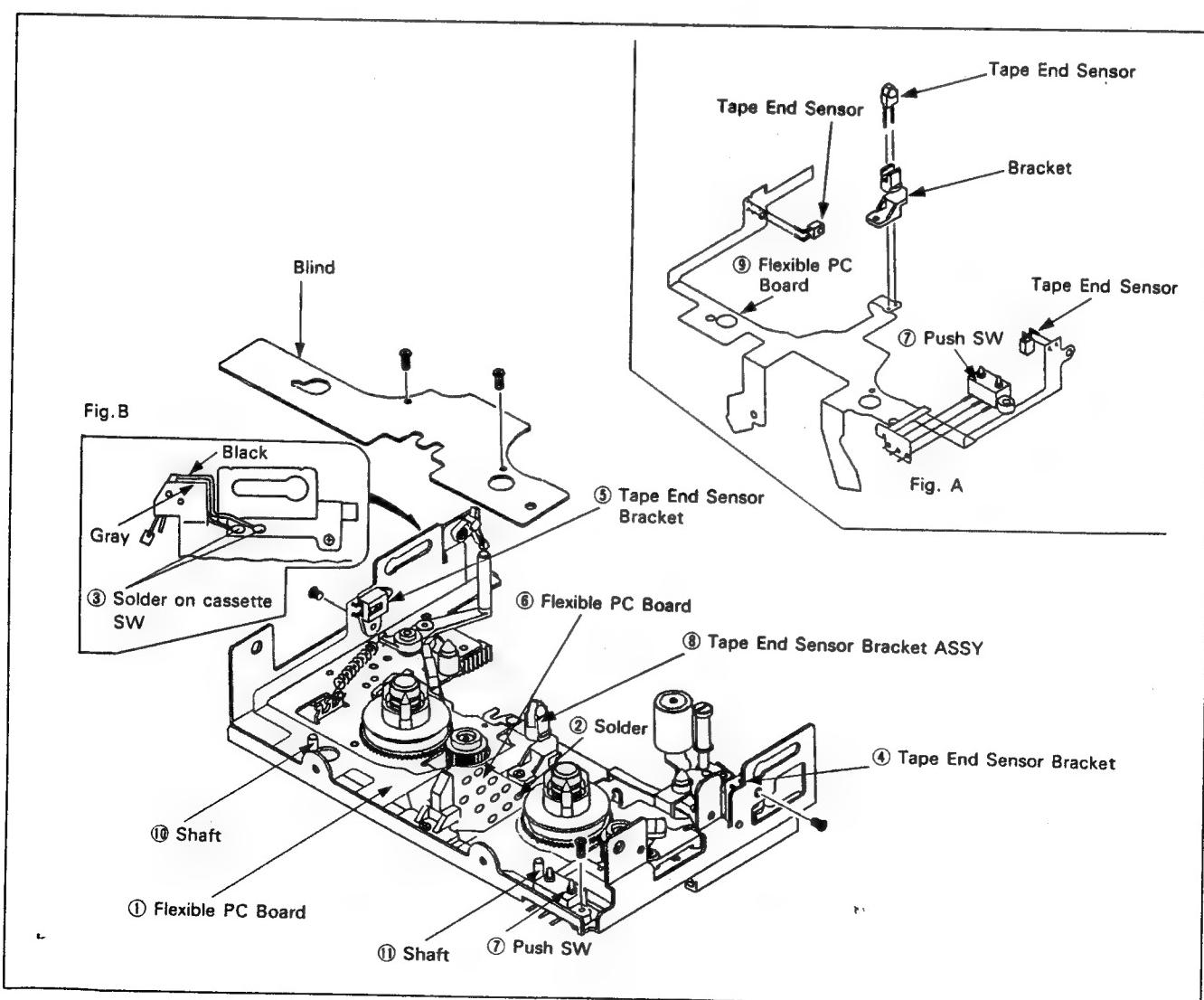


Fig. 2-20.

[※ Soldering Considerations

(See Figs. 2-21. and 2-22.))

FPC's on the mechanism are soldered using
FPC removal jig ① shown in Fig. 2-21.

1) Unsoldering

- Attach the jig onto the solder side of FPC. Make sure there is no clearance between the jig bottom and the FPC top.
- Remove all solders using unsoldering wire.
- ※ Do not overheat the solder. Avoid touching surrounding parts with the soldering iron.

2) Soldering

- Attach the jig onto the solder side of FPC. Make sure there is no clearance between the jig bottom and the FPC top.
- While heating FPC with the soldering iron, apply solder and join the 2 FPC's at 13 points.
- ※ Avoid applying excessive solder.
- After soldering, remove the jig ; verify freedom of rotation of the gear (with reel base).

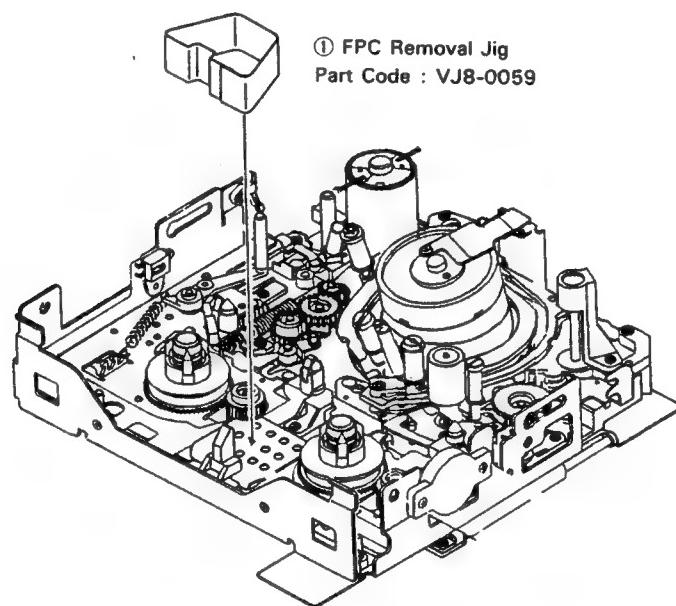


Fig. 2-21.

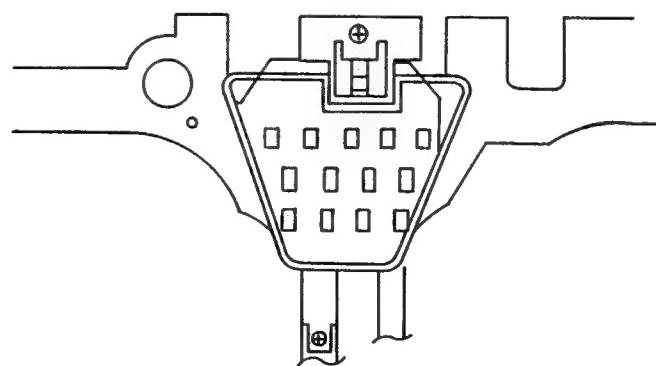


Fig. 2-22.

2-6-12. Flexible PC board (Main chassis)
(See Figs. 2-23 and 2-24.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Remove the solder from flexible PC board ① on the flexible PC board of the reel chassis ; separate the two flexible PC boards.
- 3) Unsolder lead wires of each component from the rear of the main chassis.
- 4) Referring to para 2-6-15, remove the cylinder base.
- 5) Unsolder PLAY SW ② ; remove screw ③ ; separate PLAY SW ② from flexible PC board ① and remove the SW.

(2) Reinstallation procedure

- 1) Place flexible PC board ① on the main chassis and align with hole ④, slot ⑤ and ⑥.
- 2) Insert PLAY SW ② into flexible PC board ① on the main chassis ; engage dimples and dowels and secure with screw ③ then solder the joints.
- 3) Referring to para 2-6-15, attach cylinder base to the main chassis.
- 4) Referring to Fig. 2-24, solder lead wires and dress them.
- 5) Attach flexible PC board ① to the reel chassis as shown in Fig. 2-20. (See para 2-6-11.)
- 6) Referring to Section 2-1, install the cassette mechanism.

Note : While removing or replacing PLAY SW ② from/to flexible PC board ①, be careful not to touch the wormgear with the soldering iron .

- Soldering should be done within 5 seconds at 260°C.
- Once mounting PLAY SW ② is completed, do not touch it because it may be easily distorted.

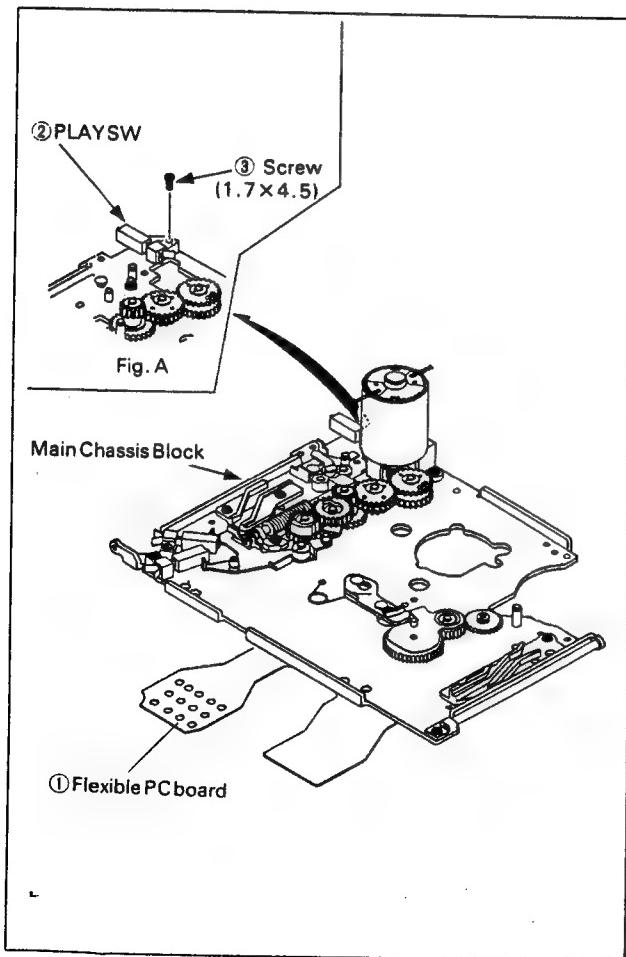


Fig. 2-23.

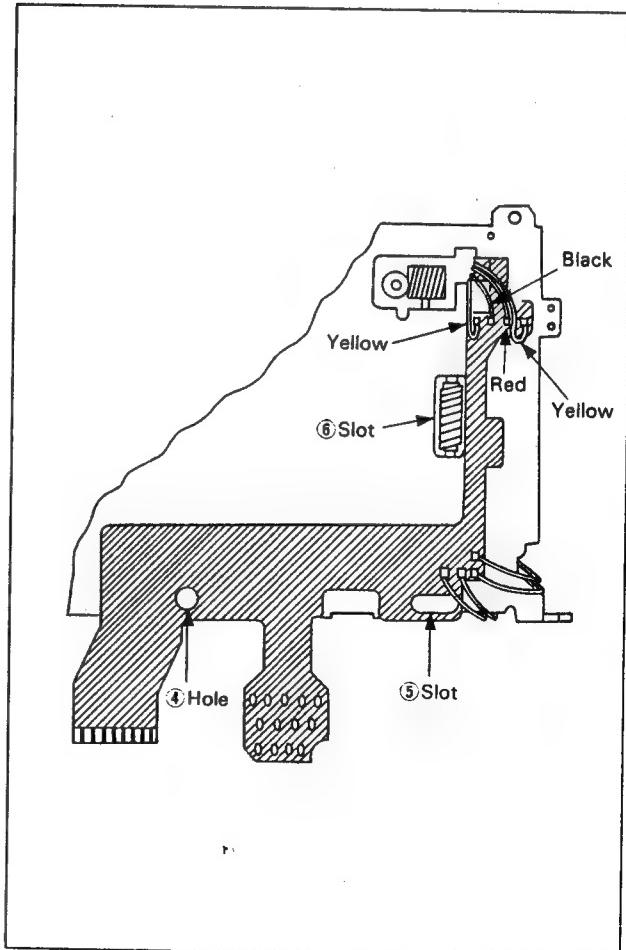


Fig. 2-24.

**2-6-13. Loading motor ASSY
(See Fig. 2-25.)**

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Unsolder the lead wires of loading motor from the rear of the main chassis.
- 3) Remove screws ③ (2 pcs at the rear of the main chassis) holding loading motor ASSY ① and bracket ②.

(2) Reinstallation procedure

- 1) Align 2 threaded holes at the bottom of loading motor ASSY ① with holes ④ in bracket ②; alternately turn screws ③. (Verify that both threads and grooves on worm screw ⑤ and worm gear of the main chassis are properly engaged.)
- 2) Solder lead wires of loading motor ASSY ①.
- 3) Referring to Section 2-1, install the cassette mechanism.

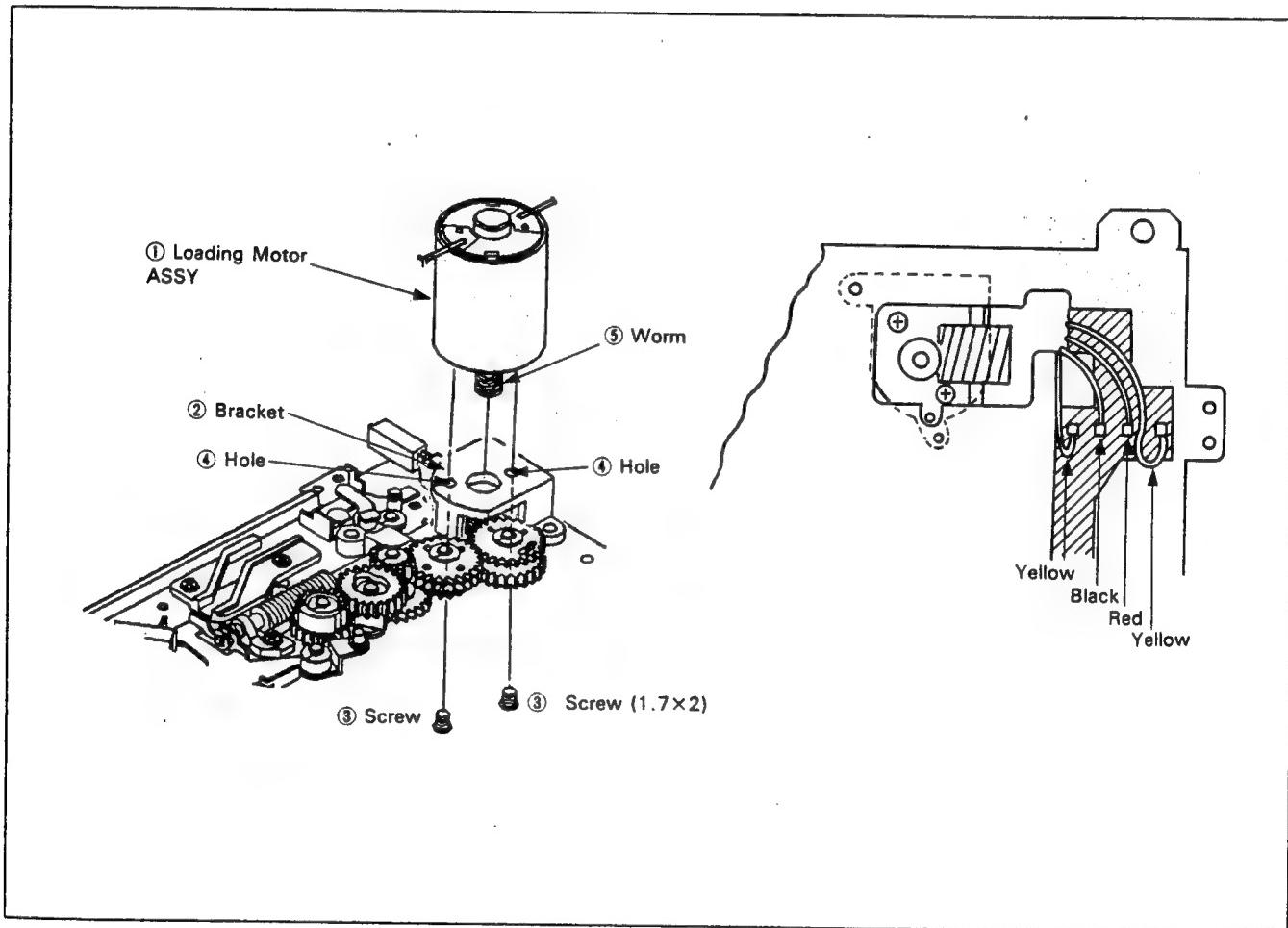


Fig. 2-25.

2-6-14. TG4 (See Fig. 2-26.) (Replacing only TG4 can be done without removing cassette mechanism.)

(1) Removal procedure

- 1) Remove upper flange ①.
- 2) Remove roller ②, sleeve ③, lower flange ④ and compression coil spring ⑤.

Notes : Upon removal of upper flange ①, compression coil spring ⑤ pops off the components above it ; arrest by hand. Do not handle bronze roller ② directly with hand.

(2) Reinstallation procedure

- 1) Insert compression spring coil ⑤, lower flange ④, sleeve ③ and upper flange ② into shaft ⑥.
 - 2) Mount upper flange ①.
 - 3) Preset the height as described below.
- (3) Presetting height**
- 1) See Fig. A. Screw upper flange ① until bottom of its slot is flush with top of shaft ⑥ ; unscrew the flange through one turn (360°).

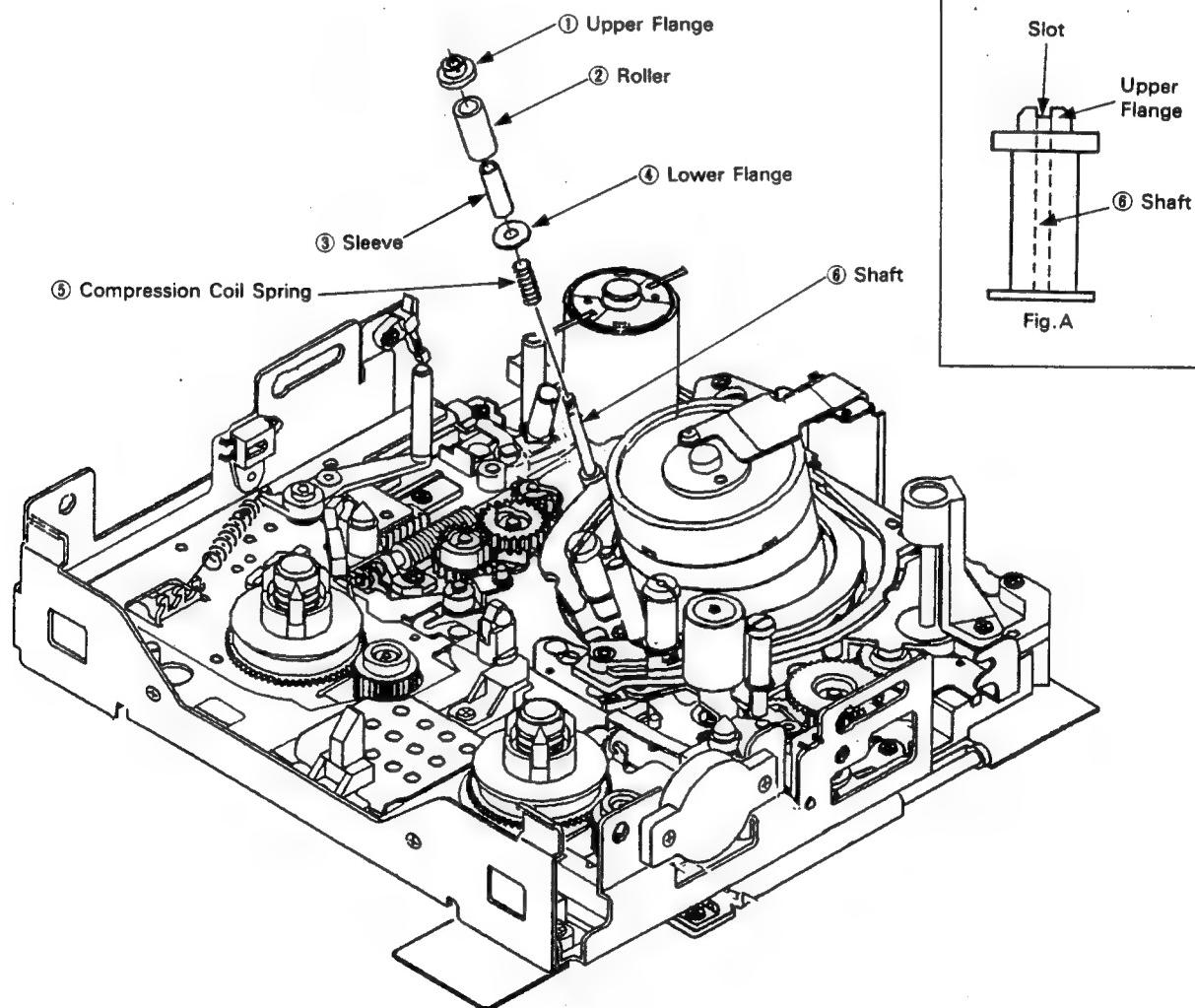


Fig. 2-26.

2-6-15. Cylinder Base (See Fig. 2-27.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (EJECT mode.)
- 2) Remove washer ① then gear ② from the main chassis.
- 3) Remove screws ③ and ④ (2 pcs) and separate cylinder base from the main chassis.

(2) Reinstallation procedure

- 1) Referring to para 2-6-16, secure cylinder base with screws ③ and ④.
- 2) Slide gear ② onto shaft ⑥; secure it with washer ①. (Mesh gears.)
- 3) Referring to Section 2-1, install the cassette mechanism.

Note : When mounting cylinder base, be sure to hook one end of spring ⑦ onto the cylinder base plate. (See Fig. A.)

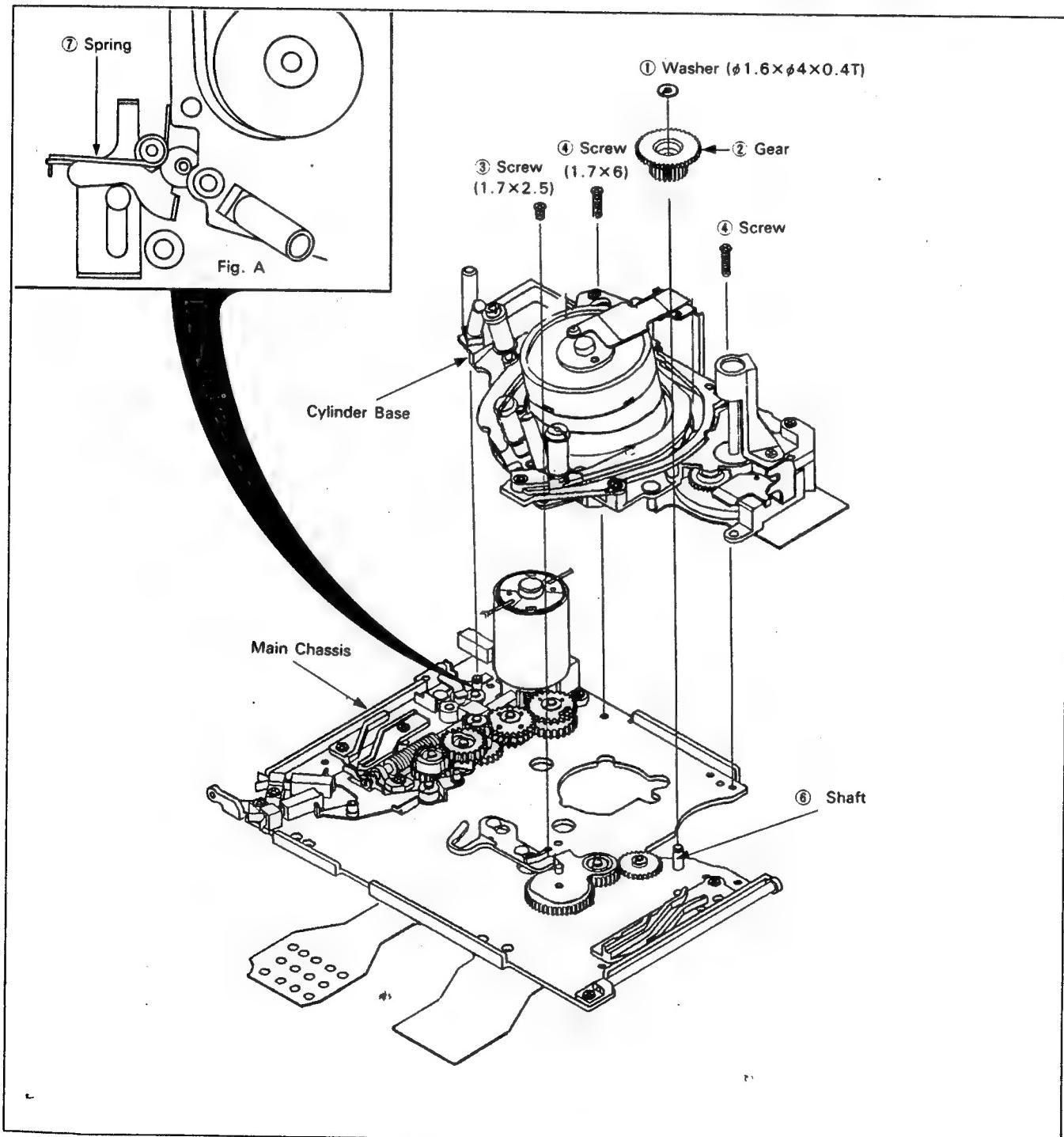


Fig. 2-27.

2-6-16. In-phasing during installation of cylinder base to the main chassis.

- 1) Referring to Fig. 2-28, set S and T shuttles into unloading position.
- 2) Referring to Fig. 2-29, mesh the 3rd tooth of upper loading ring with the marked tooth of upper loading ring drive gear ; mesh the 4th tooth of lower loading ring with the marked tooth of lower loading ring drive gear.
- 3) Match dimples and dowels of cylinder base ASSY with the main chassis and secure them with screws ① and ②.
- 4) Tighten lightly screw ③ into the hole of S rail end after completion of the reel chassis ASSY in-phase adjustment.

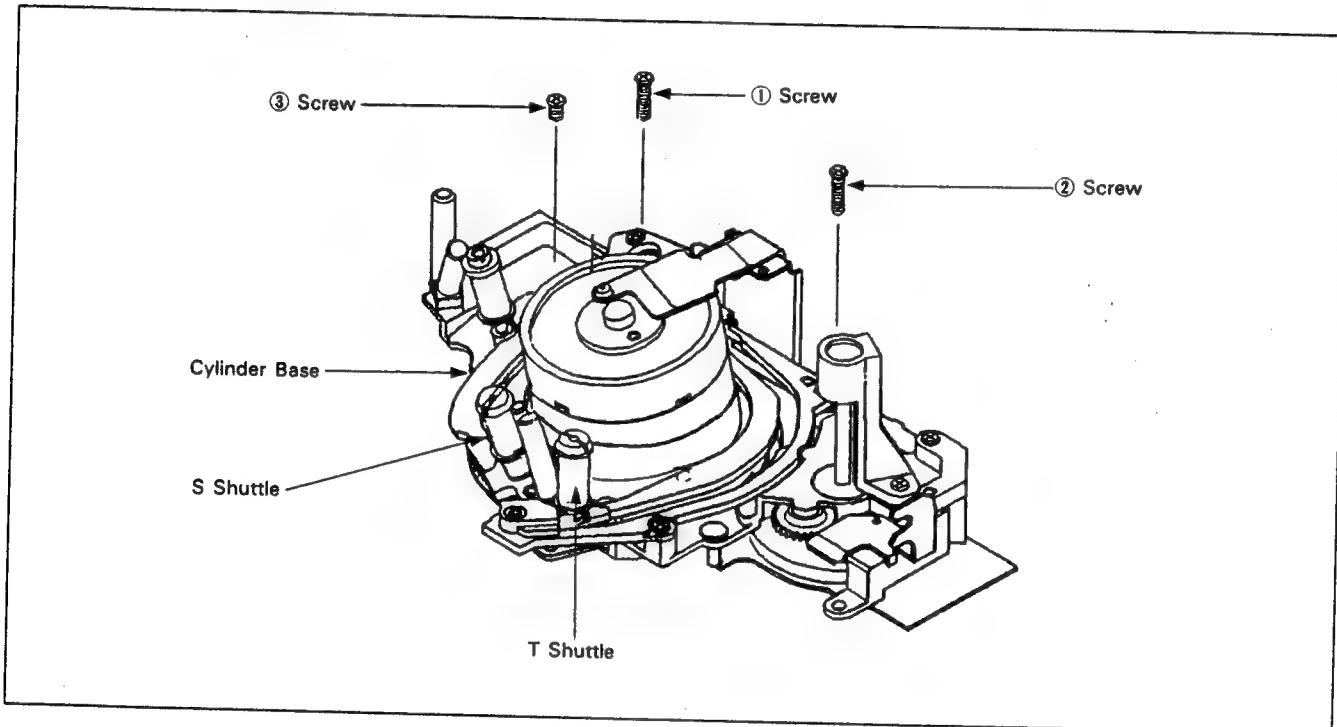


Fig. 2-28.

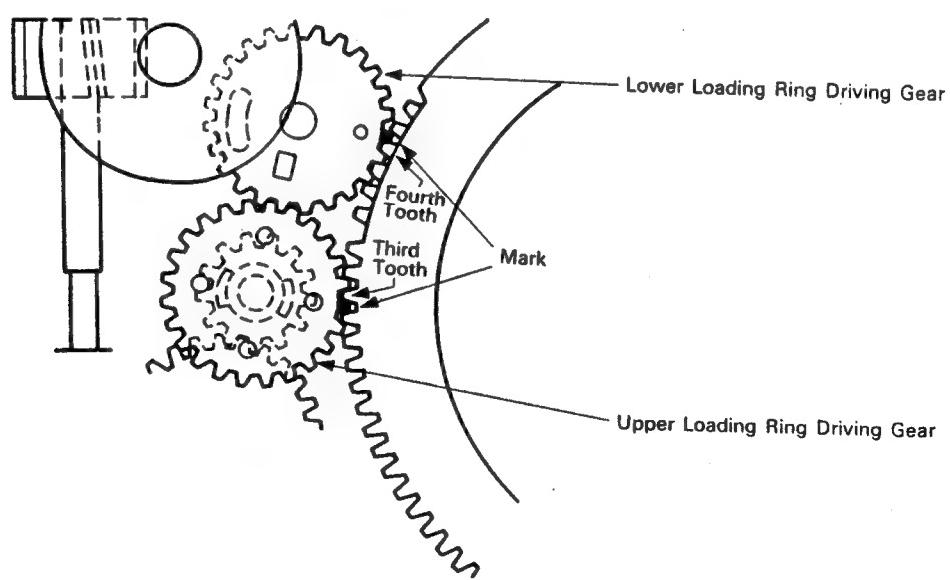


Fig. 2-29.

2-6-17. Cylinder (See Fig. 2-30.)

(1) Removal procedure

- 1) Remove the cassette mechanism referring to Section 2-1. (**EJECT** mode.)
- 2) Remove screws ① (3 pcs) from the rear of the main chassis ; remove flexible PC board ② from the main chassis and take cylinder ③ out.

(2) Reinstallation procedure

- 1) Align 2 holes at the rear of the cylinder with shafts ④ of the cylinder base.
- 2) Tighten screws ① (3 pcs).
- 3) Attach the flexible PC board to the main chassis.
- 4) Referring to Section 2-1, install the cassette mechanism.

Notes : Tighten screws ① (3 pcs) with a 0.75 kg-cm torque.

Do not touch cylinder directly with hand.

Do not touch the cylinder heads.

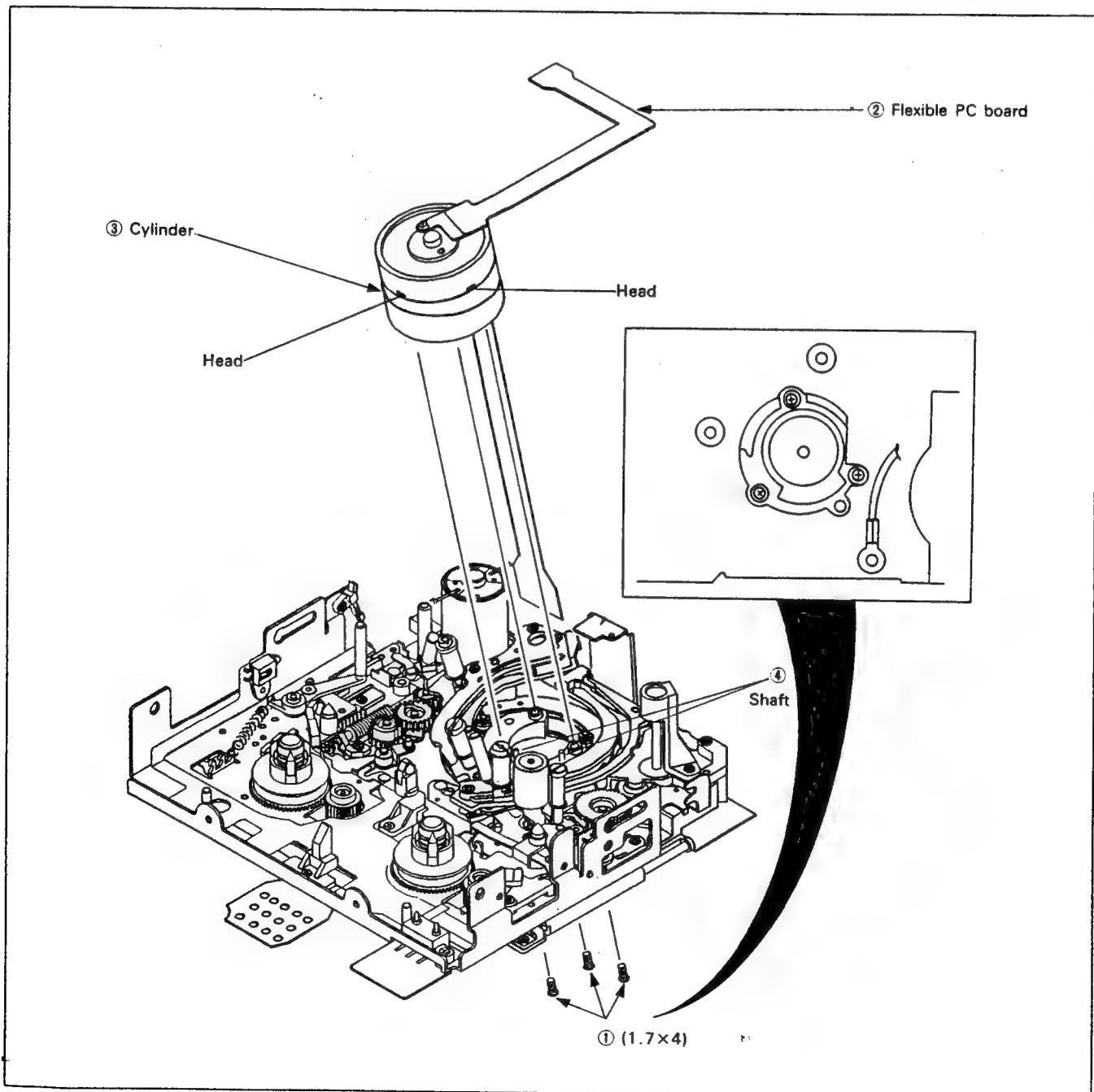


Fig. 2-30.

**2-6-18. Checking reel height
(See Fig. 2-31.)**

Checking procedure

- 1) Referring to Section 2-1, remove the cassette mechanism.

Using vernier calipers or the like, verify that there is a $5.1 \pm 0.15\text{mm}$ clearance between the top of the reel chassis and the rest plate of S and T reel bases.

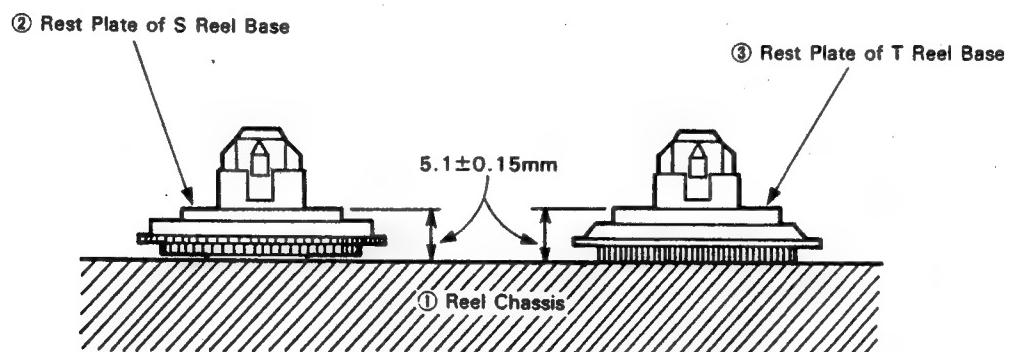


Fig. 2-31.

2-6-19. Checking FWD and RVS torque

- 1) Set the FWD and RVS takeup torque cassette (J-6080-824-A).
- 2) In with FWD mode verify the presence of a 8-12 g-cm torque for T reel side.
- 3) In review mode, verify the presence of a 20-28 g-cm torque for S reel side.
- 4) If the above values are not obtainable, interchange the reel bases.

**2-6-20. Adjusting BT lever position
(See Fig. 2-32.)**

(1) Removal procedure

- 1) Referring to Section 2-1, remove the cassette mechanism.

(2) Adjusting procedure

- 1) Referring to Section 2-3, set the mechanical deck ready for operation.
- 2) Set in a unit loading completion state without actually loading a cassette.
- 3) Loosen screw ① holding BT band ASSY ; position BT lever ② as shown in the enlarged

figure.

- 4) Retighten screw ①.

(3) Verification

- 1) Running the leading tape (P6-120), verify that there is no contact between the tape and the cassette half (See Fig. 2-33).

(4) Reinstallation procedure

- 1) Referring to Section 2-1, install the cassette mechanism.

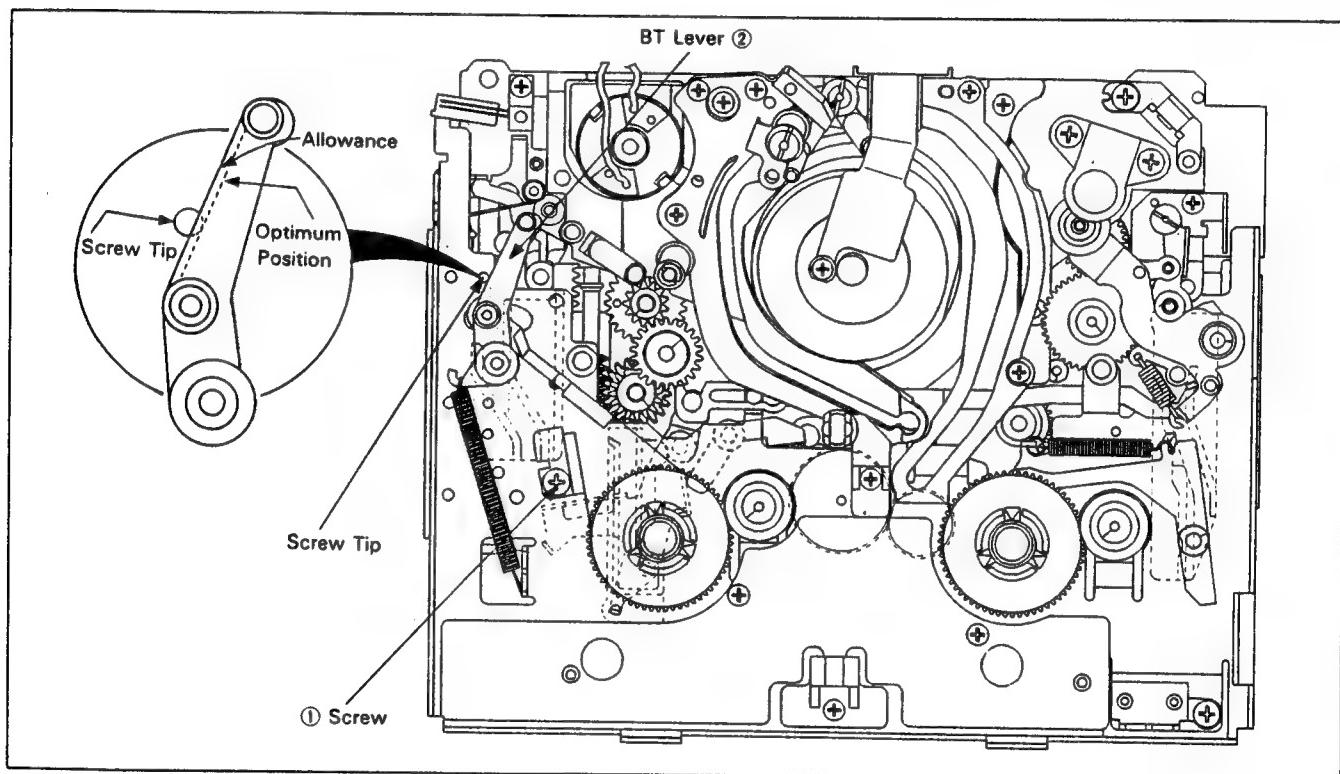


Fig. 2-32.

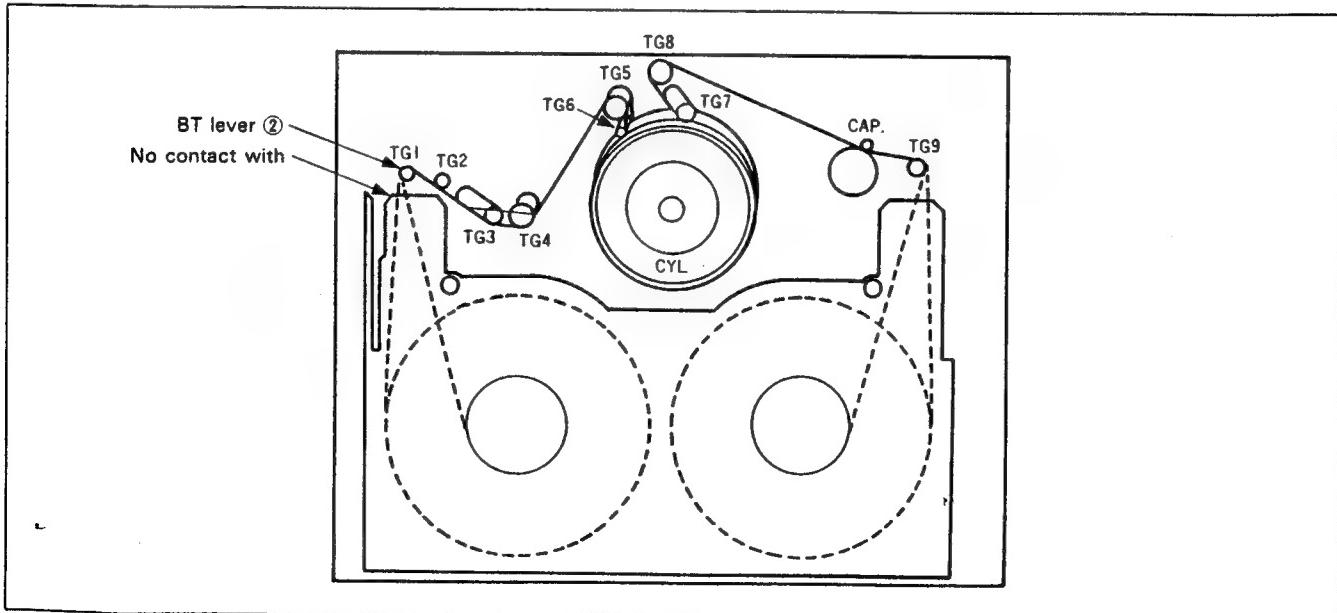


Fig. 2-33.

2-6-21. FWD back tension adjustment

(1) Removal procedure

- 1) Referring to Section 2-1, remove the cassette mechanism.

(2) Adjusting procedure

- 1) SET in enter REC mode.
- 2) Set a tension measuring reel ①.

- 3) Using a dial tension gauge ②, pull the tape from exit side at 20mm/sec and read the dial.
- 4) If the reading is outside 5~10g range, reposition the hook (See Fig. 2-35).
- (3) Referring to Section 2-1, install the cassette mechanism.

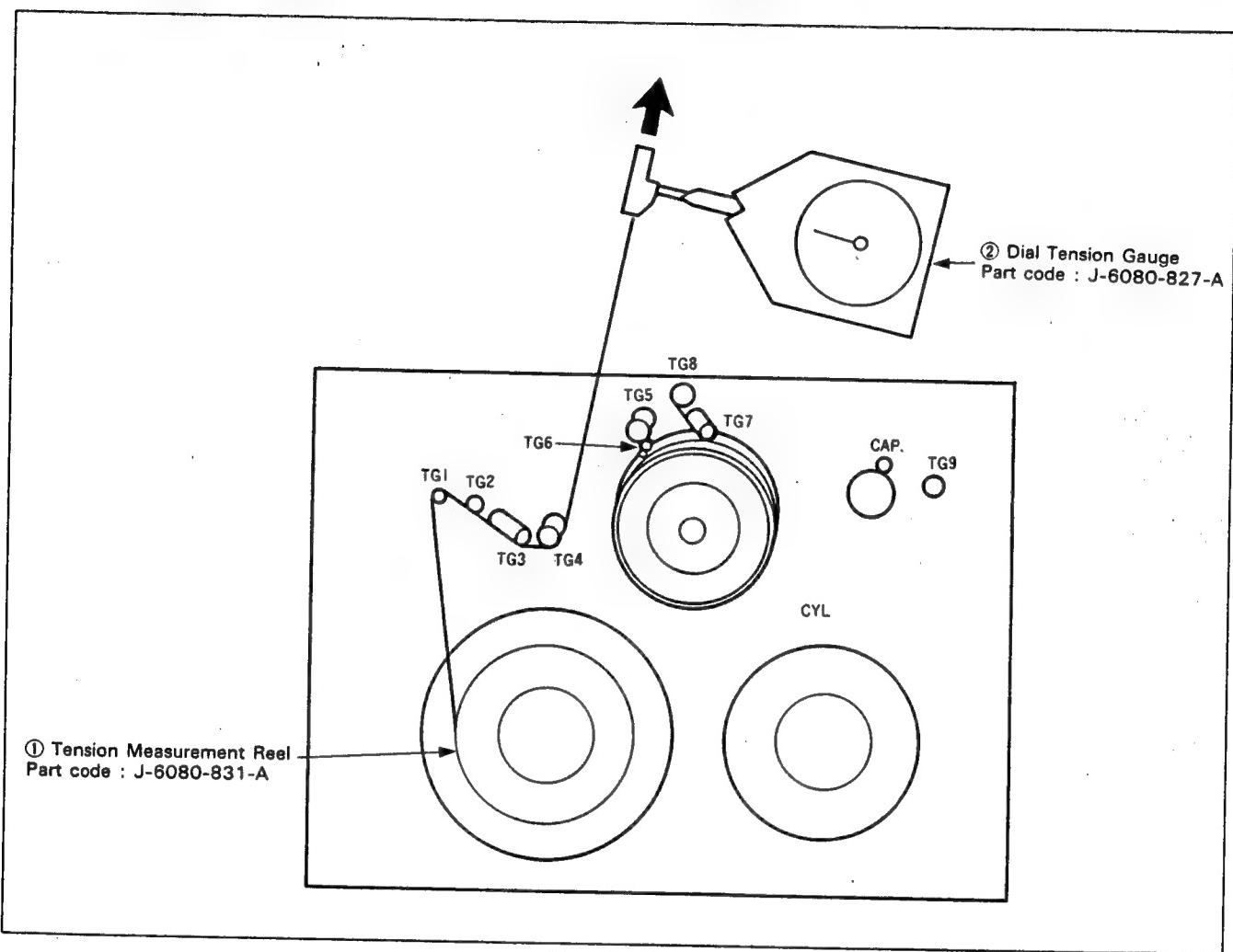


Fig. 2-34.

Tension low ← → Tension high

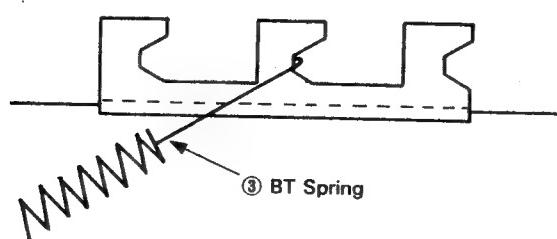


Fig. 2-35.

2-7. Tape Path Adjustment

(Shift Track)

The 8-mm video system employs a precision tracking ATF (automatic track finding) which uses 4 pilot signals to quickly control a tape running speed. This eliminates a tracking adjustment knob that would otherwise be required and yet can maintain an accurate tracking capability. The automatic system, however, has a minor disadvantage in adjusting the tape path because ATF corrects small misalignments.

For switching the SHIFT TRACK ON and OFF, refer to ADJUSTMENT mode in Section 3-1 System Control • Servo System Adjustment.

- This adjustment should be done after completion of adjustments on camera section and video section.

2-7-1. Connecting

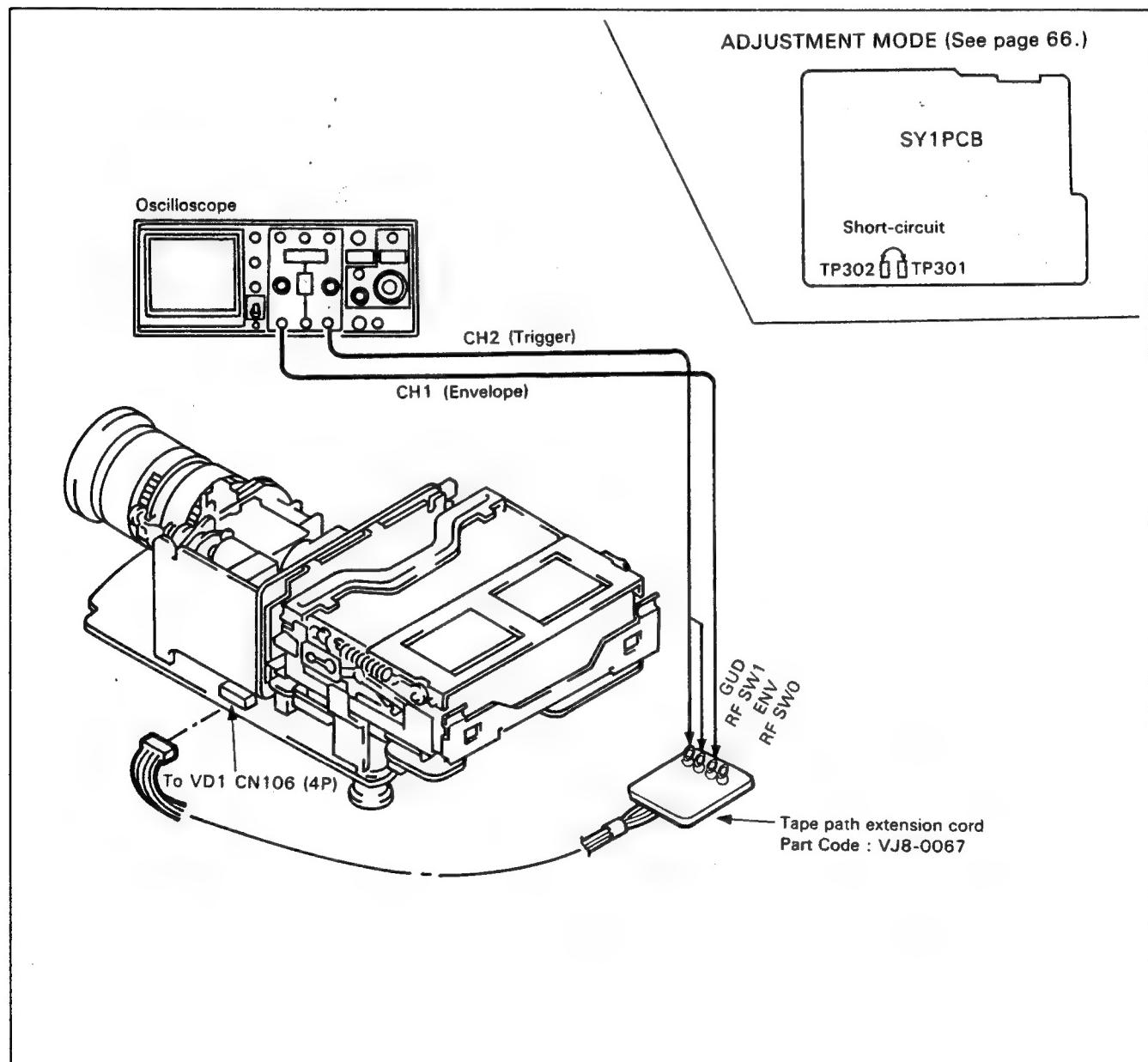


Fig. 2-36.

2-7-2. Preparation for adjustments

- 1) Clean the tape running surface (tape guide, cylinder, capstan shaft and pinch roller).
- 2) Referring to connection diagram connect the tape path extension cord and switch its SHIFT TRACK ON.
- 3) Connecting
 - 1 CH to ENV terminal
 - 2 CH to RF SW1 terminal (Ext. TRIG)
- 4) Run the tracking alignment tape (WR5-1C).
- 5) Verify on the scope that waveforms at entrance and exit are flat (See Fig. 2-37, a). If not (See Fig. 2-37, b and c), take the following step.
Perform according to para 2-7-3, tracking coarse adjustment and go to 2-7-4, tracking fine adjustment.

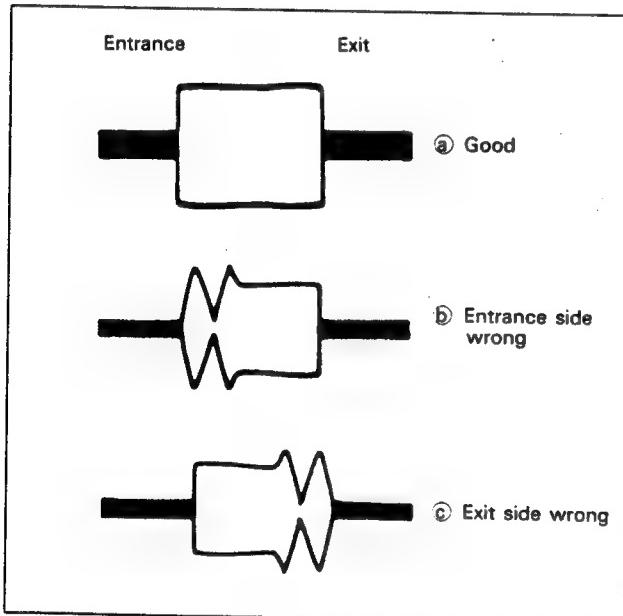


Fig. 2-37.

- 6) If the RF waveform is good, go to para 2-7-8, Checking After Adjustment.

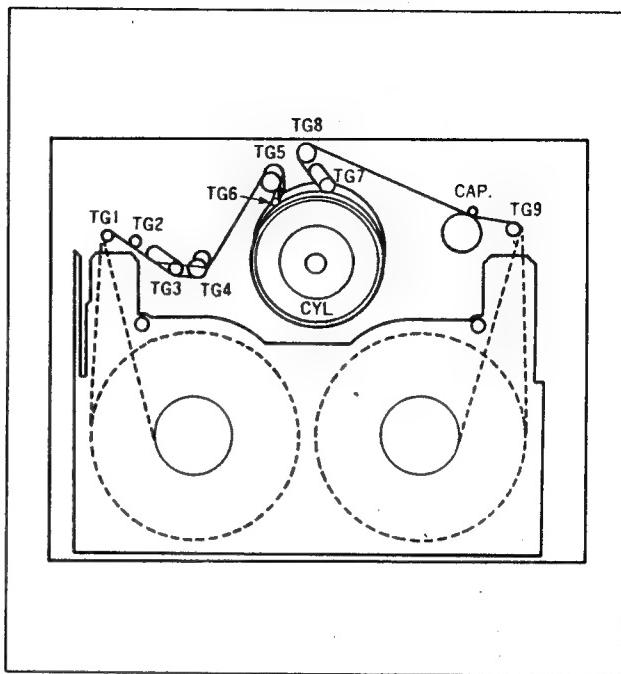


Fig. 2-38.

2-7-3. Tracking coarse adjustment

- 1) Run the tracking adjustment tape.
- 2) Adjust No.5 guide (TG5) for a flattened waveform at entrance side.
- 3) Adjust No.8 guide (TG8) for a flattened waveform at exit side.

2-7-4. Tracking fine adjustment

- 1) Run the tracking adjustment tape ; switch the SHIFT TRACK on and the RF wave form becomes about 2/3 of its maximum amplitude (see Fig.2-39).

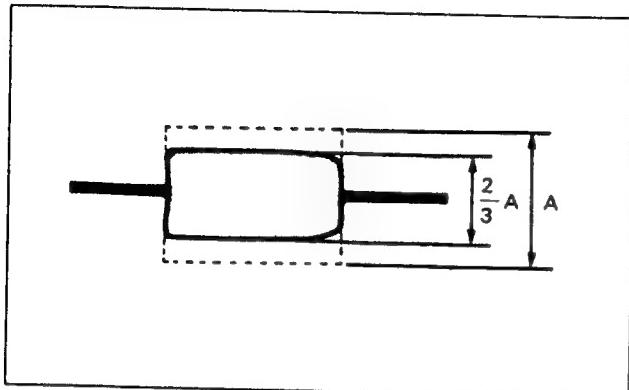


Fig. 2-39.

- 2) Make sure that the waveform is flat. If not, turn No.5 guide (TG5) and No.8 (TG8) for a flat waveform.

2-7-5. No.4 guide (TG4) adjustment

The height of No.4 guide must be first preset when it has been rotated or replaced by a new one.

Presetting height of No.4 guide

- 1) Screw TG4 nut until its slot bottom becomes flush with top of TG4 shaft (See Fig. 2-40 (a)).
- 2) Give TG4 nut one full counterclockwise turn. (360°) (See Fig. 2-40. (b)).

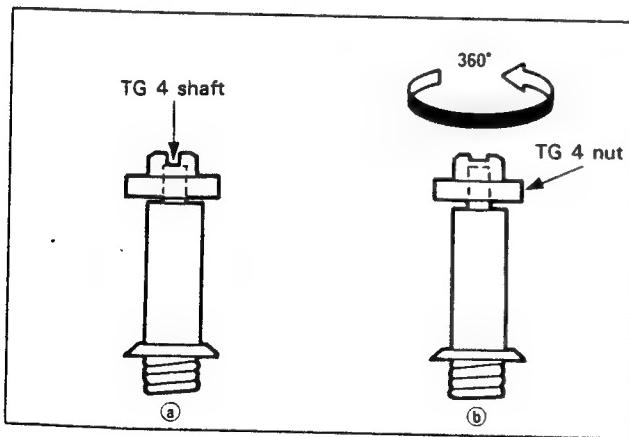


Fig. 2-40.

Adjusting No.4 guide (TG4)

- 1) Run a tracking alignment tape.
- 2) Switch the SHIFT TRACK OFF.
- 3) In REV mode, monitor the waveform (See Fig. 2-41.)
 - When the waveform is no good (as shown in Fig. 2-41. a), perform height preset steps of "Presetting Height of No.4 Guide" then go to the step 4) below.

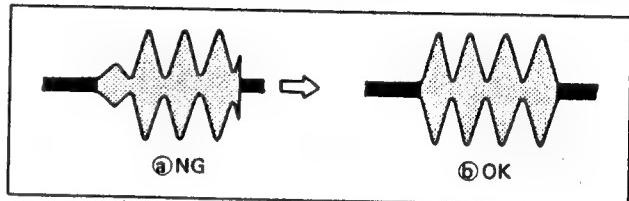


Fig. 2-41.

- 4) Rotate TG4 nut 90° clockwise. Repeat step 3). Repeat steps 3) and 4) until a correct waveform is obtained. Note that the tracking waveform (Fig. 2-39) remains unchanged during these steps. If it varies, fine adjust tracking at entrance side and go to step 3) again.

2-7-6. No.9 guide (TG9) adjustment

- 1) Run the tracking alignment tape ; set in PLAY mode.
- 2) Make sure there is no tape slack between No.9 guide (TG9) and capstan (See Fig. 2-42). If present, eliminate the slack by turning No.9 guide (TG9).
- 3) In REV mode, make sure there is no tape slack : less than 0.5 mm. If it exists, eliminate it by turning No.9 guide (TG9).

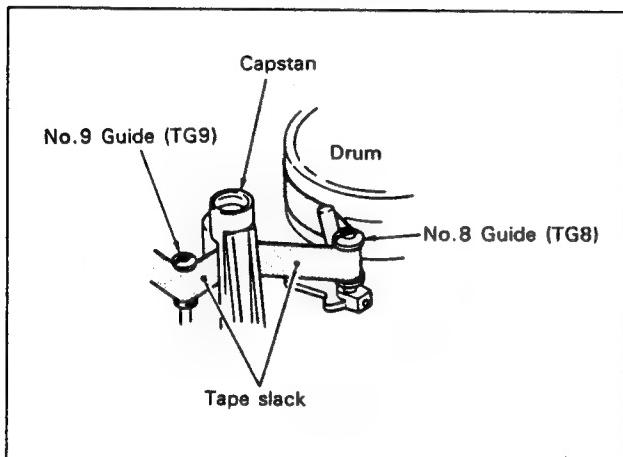


Fig. 2-42.

2-7-7. Verification of CUE and REV waveforms

- 1) Run the tracking alignment tape ; set in REV mode.
Make sure that the waveforms have equidistant peaks (See Fig. 2-43).
If not, perform according to para 2-7-4, Tracking Fine Adjustment, and 2-7-5, No.4 Guide Adjustment.
- 2) Set in CUE mode. Make sure that the waveforms have equidistant peaks (See Fig. 2-43). If not, perform according to para 2-7-4, Tracking Fine Adjustment.

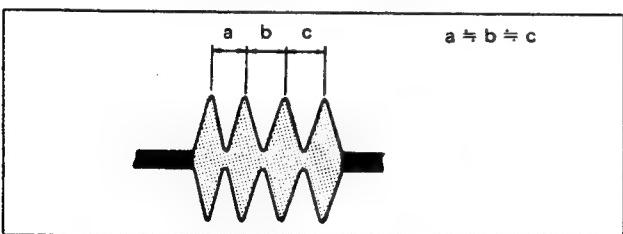


Fig. 2-43.

2-7-8. Checking after adjustments

1. Checking tracking performance

- 1) Run tracking alignment tape ; Switch the SHIFT TRACK ON, if OFF, the RF wave form becomes about 2/3 of its maximum amplitude (see Fig. 2-44).
- 2) Make sure that the minimum amplitude (EMIN) is more than 75% of its maximum amplitude (EMAX) (See Fig. 2-45).
- 3) Verify existence of stable waveform amplitude (See Fig. 2-46).

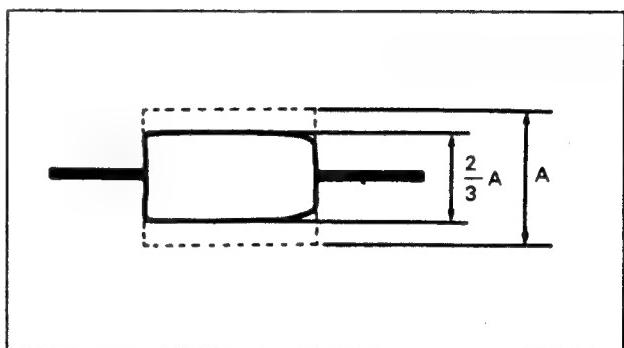


Fig. 2-44.

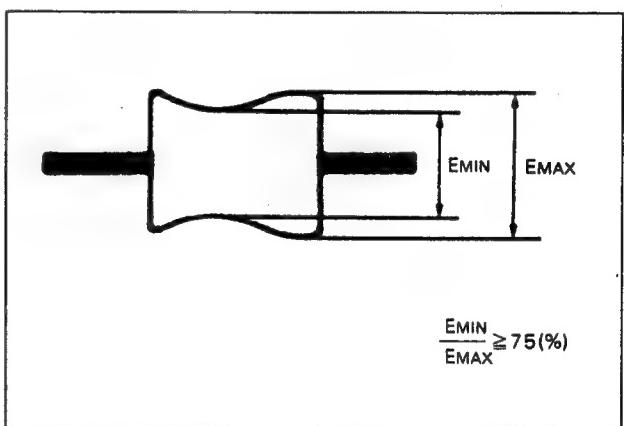


Fig. 2-45.

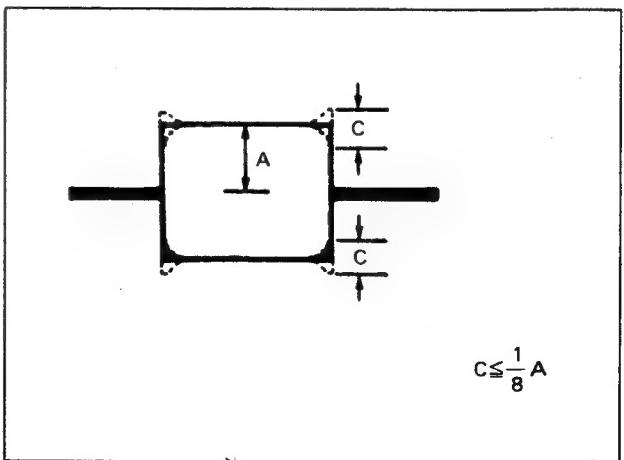


Fig. 2-46.

2. Checking Rise Time

- 1) Run tracking alignment tape.
- 2) Adjust LEVEL knob of the shift track jig so that the RF waveform is at its maximum amplitude.
- 3) Eject the cassette and reload it again.
- 4) Set in PLAY mode and verify fast rise of RF waveform leading edges.
Also verify absence of slack around the pinch roller (See Fig. 2-42).
- 5) Replay the tape after each CUE, REV, FF and REW operation ; verify that all waveforms have fast rising edges.

Note : When the tape path adjustment is completed, remove the short-circuit from TP301 and TP302 to cancel the adjustment mode.

3. Checking Tape Running

In PLAY mode, verify the absence of clearance between tape edge and No.4 guide lower flange, No.5 guide upper flange and No.8 guide upper and lower flanges. Also verify the absence of curls at No.9 guide on upper and lower flanges (See Fig. 2-47).

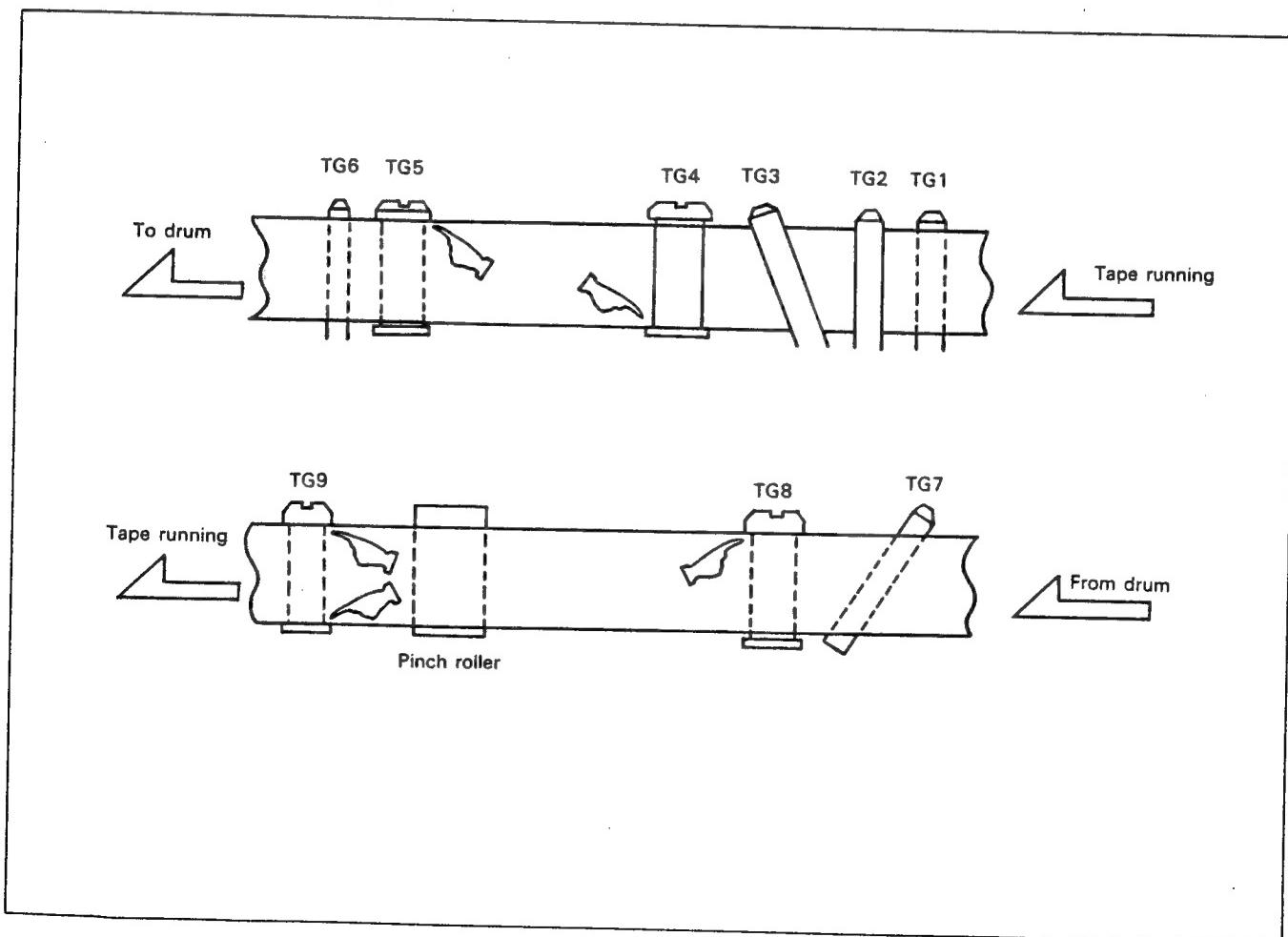


Fig. 2-47.

3. VIDEO ADJUSTMENT

[Equipment required]

- 1) Monitor TV
- 2) Two-channel oscilloscope, 10 MHz or better, with delay mode (Use a 10:1 probe, unless otherwise specified.)
- 3) Frequency counter
- 4) Pattern generator with video output terminals
Note : The pattern generator must be capable of switching chroma signal OFF.
- 5) Regulated power supply
- 6) Alignment tapes (Jig)

7) MP tape

8) Jigs as shown in Figs. 3-1a and 3-1b.

[Alignment tapes]

Operation Checking (WR5-5CSP)
Part code : 8-967-995-47

Tape	Contents	Use
Operation Check (WR5-5CSP)	1. Record area : PCM to video 2. Record contents : Color bars, monoscope (SP) Audio signals (FM), PCM audio signals	Operation checking

[Jigs]

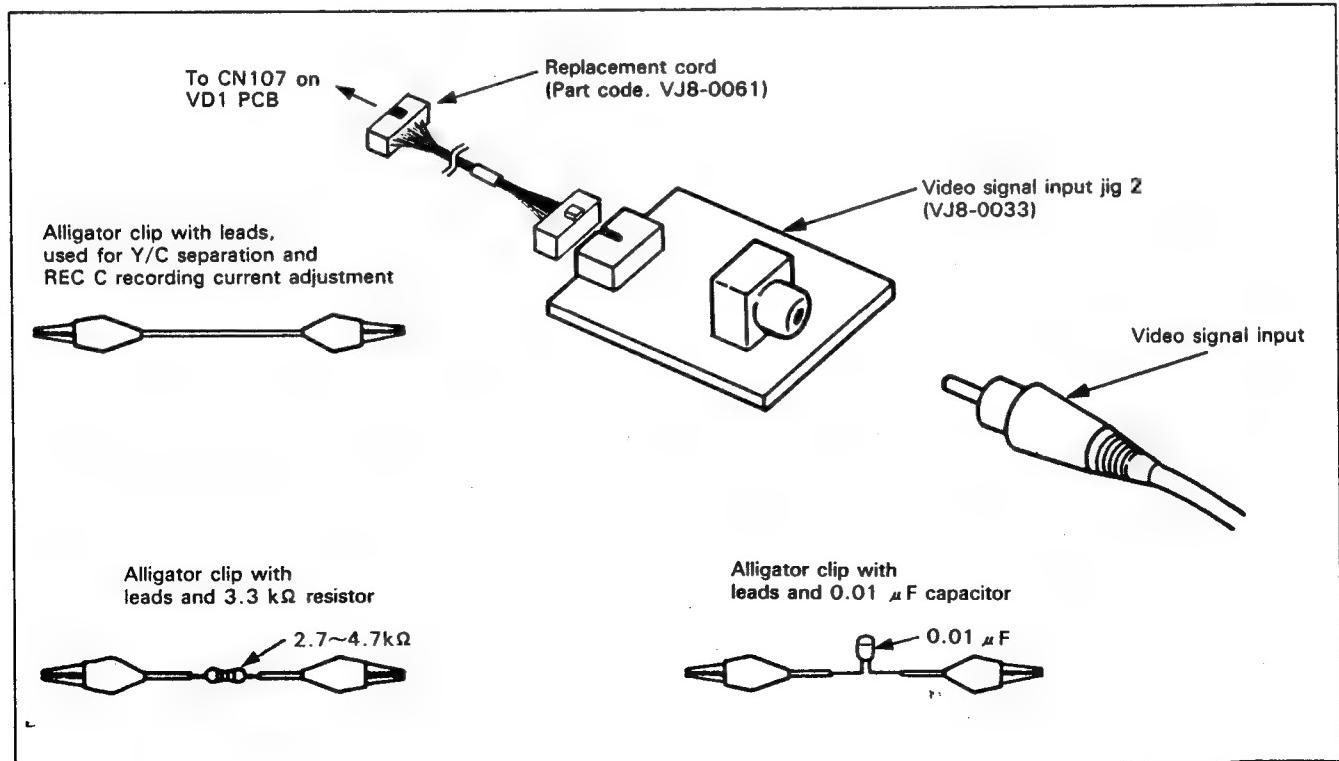


Fig. 3-1a.

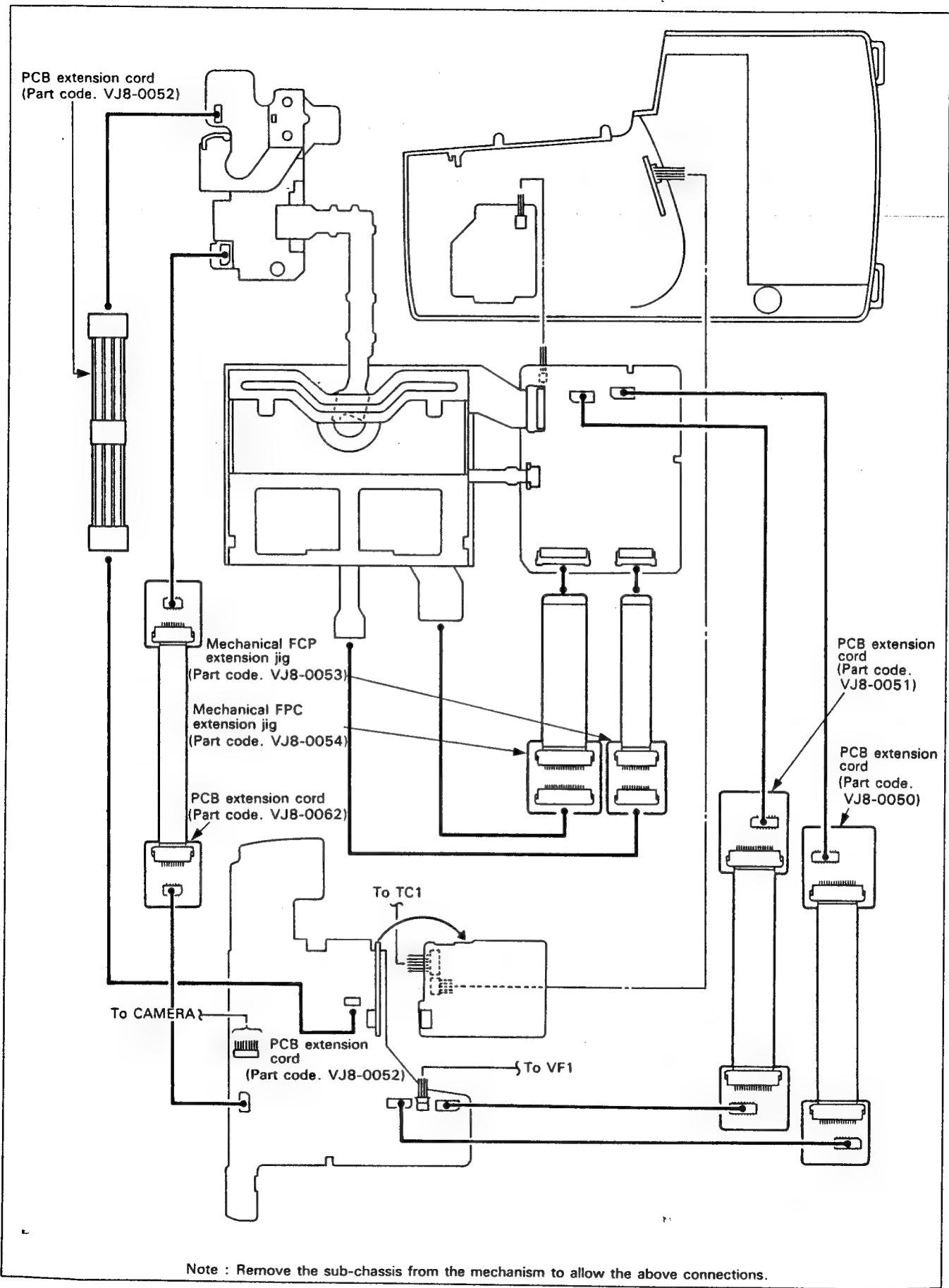


Fig. 3-1b.

[Equipment connections for adjustment]

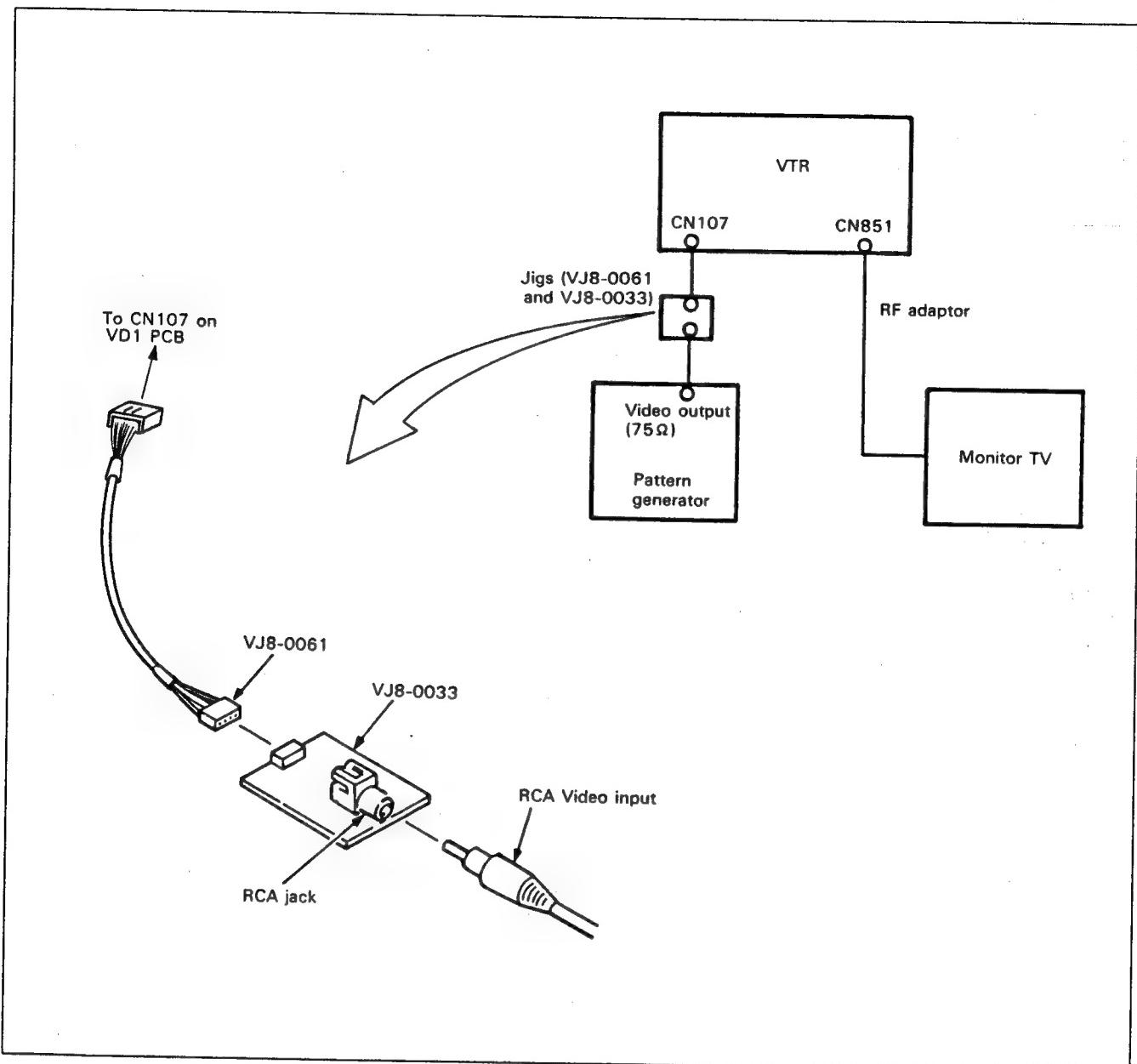


Fig. 3-2. Connections

[Adjustment setups]

A video signal is necessary for VTR adjustment. It is generated by a pattern generator. The video signal must satisfy the following requirements : The amplitude of the synchronization signal of the video signal must be approximately 0.3 V, the amplitude of the video signal must be approximately 0.7 V, the amplitude of the burst signal must be approximately 0.3 V and flat, and the ratio between burst signal level and red signal level must be 0.30 : 0.66, as measured with the oscilloscope connected to pin 5 (CAMERA Y) of CN107 on VD1 PCB. The video signal to be used for VTR adjustments is illustrated in Fig. 3-3.

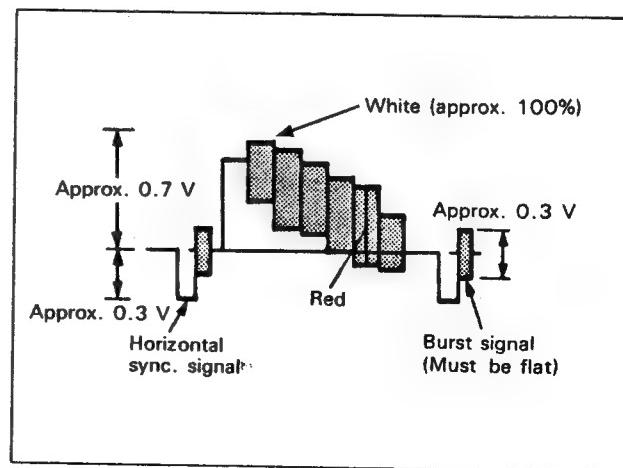


Fig. 3-3. Pattern generator color bar signals

3-1. System Control · Servo System Adjustment

[Adjustment Procedure]

- 1) Battery failure adjustment
- 2) H sync oscillation frequency adjustment
- 3) Mark position adjustment
- 4) Video center adjustment
- 5) Still adjustment

[Adjustment mode]

Short-circuiting TP301 to TP-302 (SY1) brings about adjustment mode. In the adjustment mode, mode transfers as shown in Fig. 3-4. can be performed, making various adjustments easier.

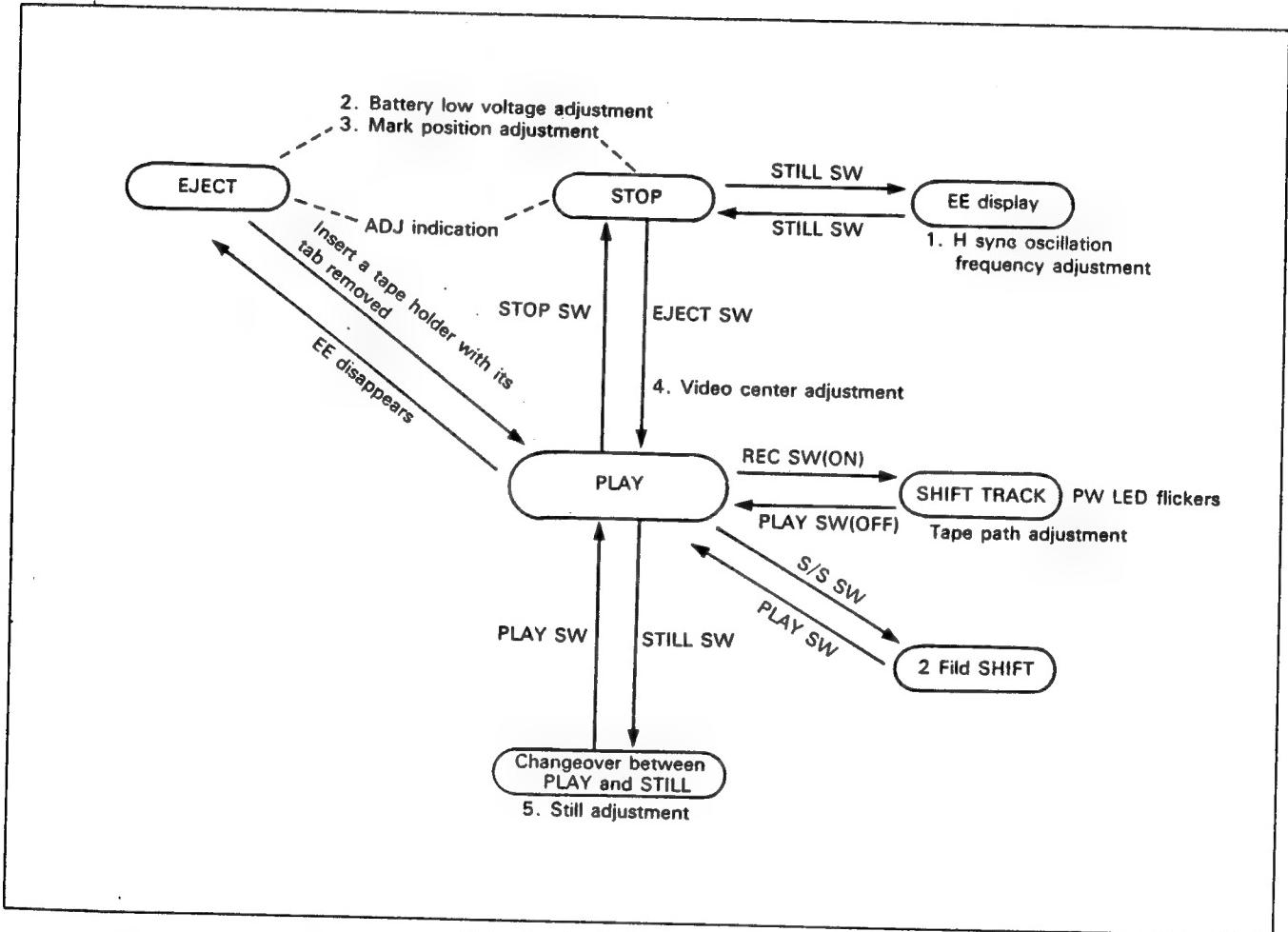


Fig. 3-4. Adjustment mode.

3-1-1. Battery failure adjustment

Measuring instrument : Digital voltmeter

Mode : STOP mode (Power ON)

VR to be adjusted : VR351

Setup : Set the battery terminal voltage to 5.70 V with the camera block connected, or to 5.68 V with no camera block connected.

Procedure : Adjust VR351 so that the center mark of the adjustment mode display flickers. (See Fig. 3-5.)

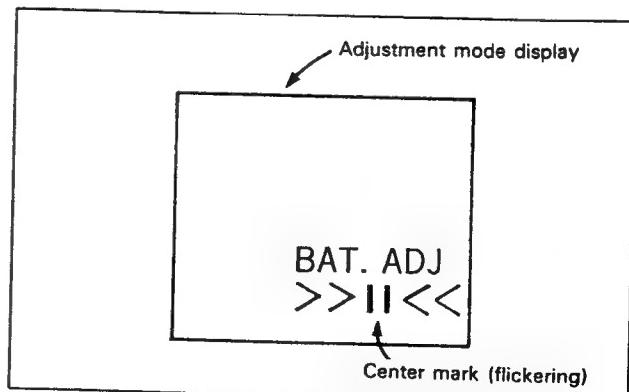


Fig. 3-5.

3-1-2. H sync oscillation frequency adjustment

Measuring instruments : Digital voltmeter and frequency counter
Mode : STOP mode (Power ON)
Measuring point : TP321 (SV1)
VR to be adjusted : VR321
Setup : Press STILL SW (EE disappears). The power supply voltage must be 7.5 V.
Adjustment procedure : Adjust VR 321 so that the oscillation frequency, f_H , is 16.2 ± 0.1 kHz for NTSC, or 16.1 ± 0.1 kHz for PAL. Press STILL SW to return to STOP mode.

3-1-3. Mark position adjustment

Mode : STOP mode (Power ON)
CT to be adjusted : CT321
Setup : The power supply voltage must be 7.5 V.
Adjustment procedure : Adjust CT321 so that the center mark of the display is centered.

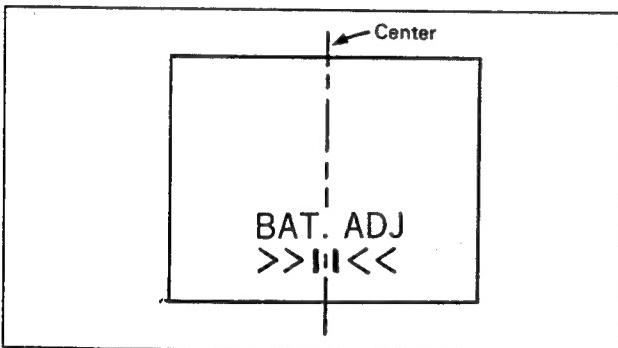


Fig. 3-6.

3-1-4. Video center adjustment

Measuring instrument : Oscilloscope
Mode : PLAY mode
Measuring points : Pin ④ of CN106 (VD1) for RF SW0 trigger, and Pin ⑨ TP109 (VD1) for video signal output
VR to be adjusted : VR352
Setup : The power supply voltage must be 7.5 V.
Adjustment procedure : Adjust VR352 so that the period from the edge of the RF SW0 to the start of V sync signal is 6.5 ± 0.3 H.

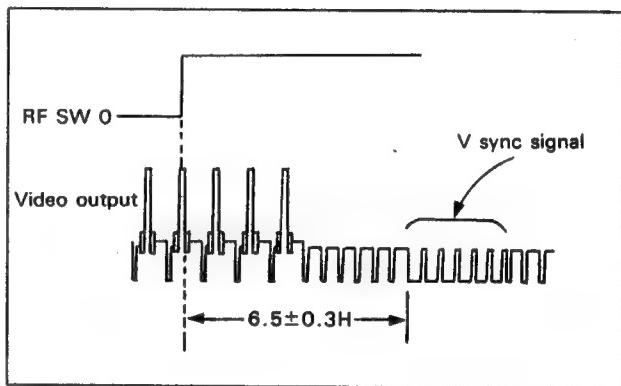


Fig. 3-7.

3-1-5. Still adjustment

Mode : PLAY mode
VR to be adjusted : VR353
Setup : The power supply voltage must be 7.5 V.
Self-recording (use the center portion of a 90-min tape).
Adjustment procedure : Press STILL SW in PLAY mode. (Changeover between PLAY and STILL is feasible.).
Adjust VR353 so that the still noise is located at the bottom of the screen.

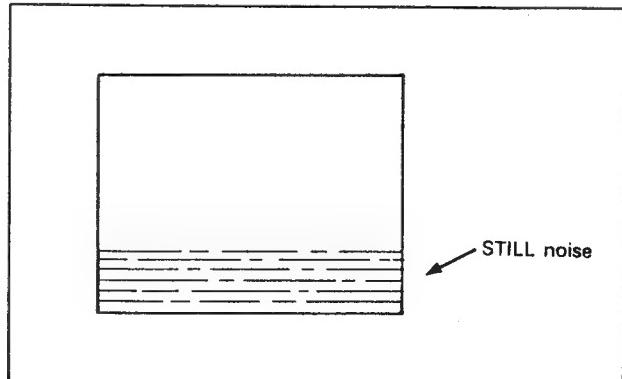


Fig. 3-8.

When the control servo system adjustment is completed, remove the short-circuit from TP301 and TP302 to cancel the adjustment mode.

3-2. Video System Adjustment

Normally, adjustment of the video system must be done following the sequence stated below. A color video signal is used as the video input signal during record mode video system adjustment. The video signal, as generated by a pattern generator, must satisfy the adjustment setup requirements illustrated in Fig. 3-3.

[Adjustment sequence]

- 1) Playback output level check
- 2) Flying erase check
- 3) SYNC AGC adjustment
- 4) Y/C separation adjustment
- 5) BF position adjustment
- 6) PB Y level adjustment
- 7) PB LINE OUT level adjustment
- 8) Y FM carrier frequency adjustment
- 9) Y FM deviation adjustment
- 10) REC Y recording current adjustment
- 11) REC C recording current adjustment
- 12) REC AFM recording current adjustment
- 13) REC ATF recording current adjustment

3-2-1. Playback output level check (VD1)

Information in brackets [] is for CH-A2 or -B2.
Measuring instrument : Oscilloscope

Mode : Playback

Measuring points : Pin ③ of CN106 (Pin ③ of CN106) for PB RF ; Pin ② of CN106 (Pin ② of CN106) for trigger RF SW1; + (-) for trigger slope

Alignment tape : WR5-5CSP

Procedure : Check that the PB PF output level is $400 \pm 80\text{mVp-p}$.

If not, the PCB (VP-1) or cylinder may be defective. Replace the PCB, or clean the cylinder. If cleaning of the cylinder does not solve the problem, replace the cylinder, adjust the mechanism, and perform flying erase check again.

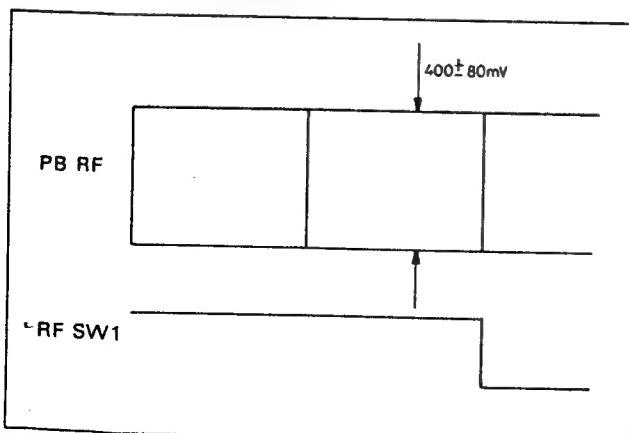


Fig. 3-9.

3-2-2. Flying erase check (VP1)

Measuring instrument : Oscilloscope

Mode : Recording

Measuring point : TP151 (erase check)

Input signal : Not specified

Procedure : Check that the oscillation frequency is 7.5 MHz or higher, and that the oscillation voltage is 7.0 Vp-p or greater.

If not, the PCB may be defective ; Replace the VP-1 PCB assy.

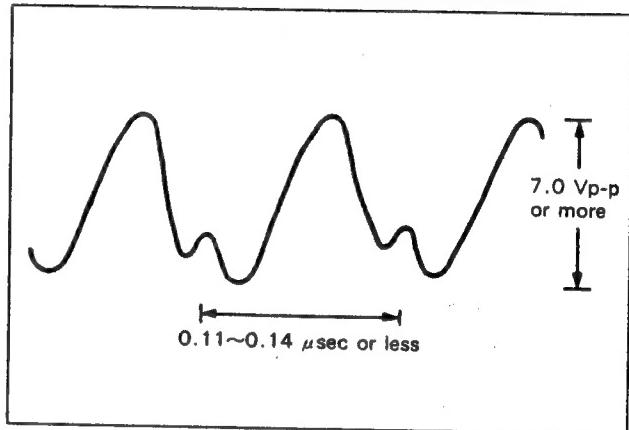


Fig. 3-10.

3-2-3. SYNC AGC adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Recording

Measuring point : TP102

Input signal : Color bar (Y signal only)

VR to be adjusted : VR101

Adjustment procedure : Adjust VR101 so that the white level as shown in Fig. 3-11. is 0.5 ± 0.01 Vp-p.

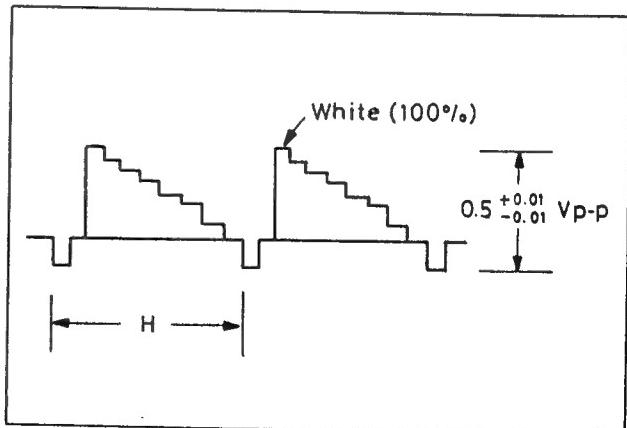


Fig. 3-11.

3-2-4. Y/C separation adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Recording

Measuring point : TP110

Input signal : Color bar (composite signal)

VR to be adjusted : VR102

Setup : Short-circuit TP103 to TP108 (GND) with an alligator clip with lead. Short-circuit TP141 to TP108 (GND) with an alligator clip with a capacitor ($0.01\mu F$) and lead.

Adjustment procedure : Adjust VR102 so that the level of the persisting chroma signal is minimized.

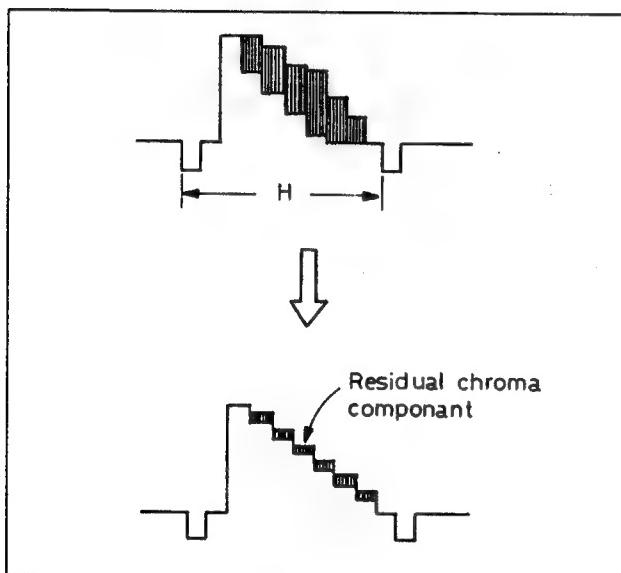


Fig. 3-12.

3-2-5. BF position adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Recording

Measuring point : TP106

Input signal : Color bar (composite signal)

VR to be adjusted : VR103

Setup : Short-circuit TP106 to TP108 with an alligator clip with a resistor and lead.

Adjustment procedure : Adjust VR103 so that the burst flag (BF) is $6.0 \pm 0.1 \mu sec$.

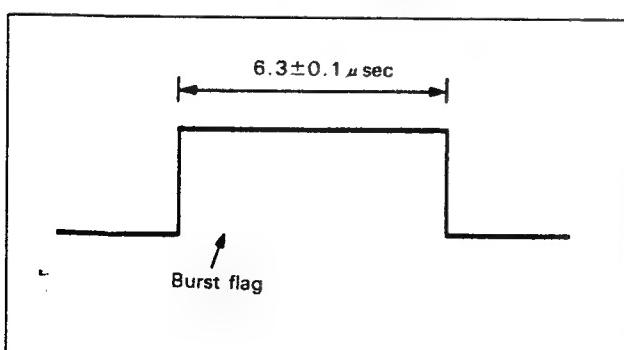


Fig. 3-13.

3-2-6. PB Y level adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Playback

Measuring point : TP104

Alignment tape : WR5-5CSP (color bar portion)

VR to be adjusted : VR106

Adjustment procedure : Adjust VR106 so that the PB Y level is $0.5 \pm 0.01 Vp-p$.

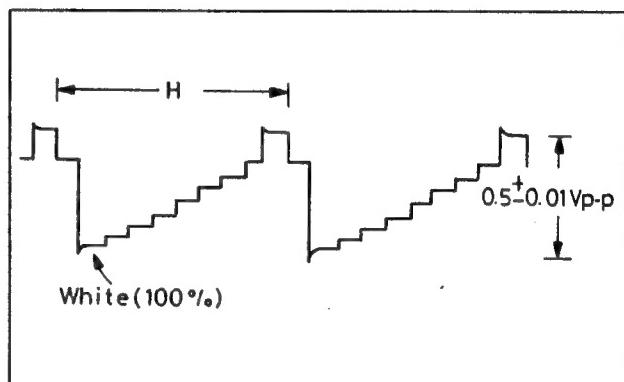


Fig. 3-14.

3-2-7. PB LINE OUT level adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Playback

Measuring point : TP109

Alignment tape : WR5-5CSP (color bar portion)

VR to be adjusted : VR107

Setup : An RF adaptor must be connected, and the video output terminals be equipped with a 75 ohm resistor.

Adjustment procedure : Adjust VR107 so that the PB LINE OUT level is $1.00 \pm 0.02 Vp-p$.

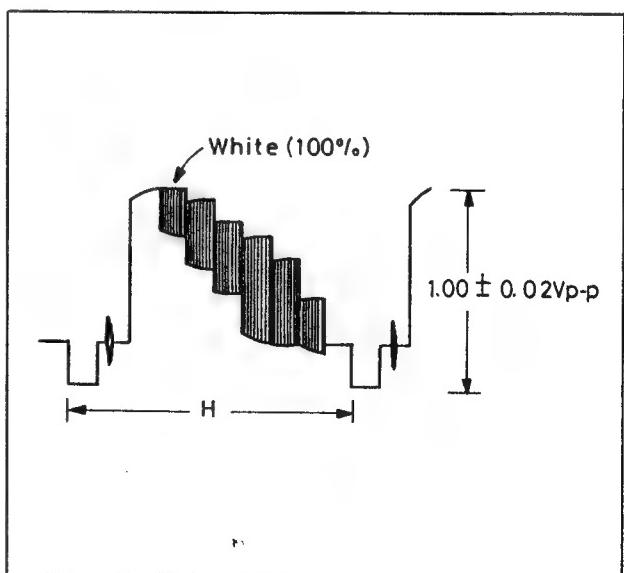


Fig. 3-15.

3-2-8. Y FM carrier frequency adjustment (VD1)

Measuring instruments : Oscilloscope and frequency counter

Mode : Recording

Measuring point : TP112

Input signal : None

VR to be adjusted : VR104

Adjustment procedure : Adjust VR104 so that frequency is 4388 ± 30 kHz.

Note : With the frequency set at 4380 kHz, a frequency of 4.20 MHz is obtained when a signal exists.

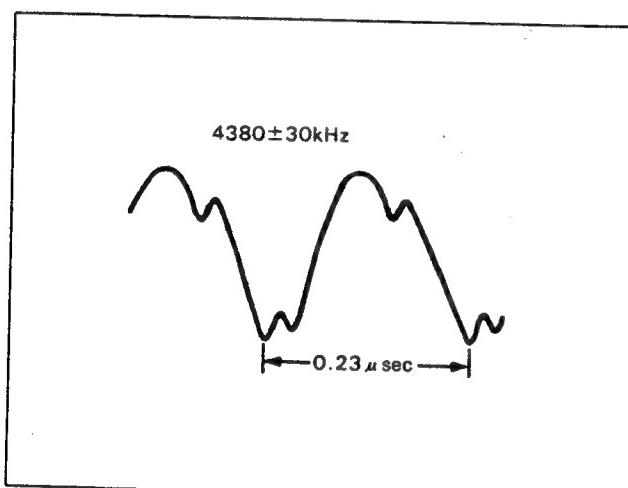


Fig. 3-16.

3-2-9. Y FM deviation adjustment

Measuring instrument : Oscilloscope

Modes : Recording and playback

Measuring point : TP109

Input signal : Color bar (Y signal only)

VR to be adjusted : VR105

Setup : An RF adaptor must be connected, and the video output terminals must be equipped with a 75 ohm resistor. SYNC AGC, PB Y level, PB LINE OUT level, and Y FM carrier frequency adjustments must be done.

Adjustment procedure :

- 1) Record the color bar (Y signal).
- 2) Playback the recorded level.
- 3) Check that the level is 1.00 ± 0.05 Vp-p (standard level).
- 4) If the level is not the standard level, adjust VR105 (see the table below), and repeat steps 1) through 3) above.

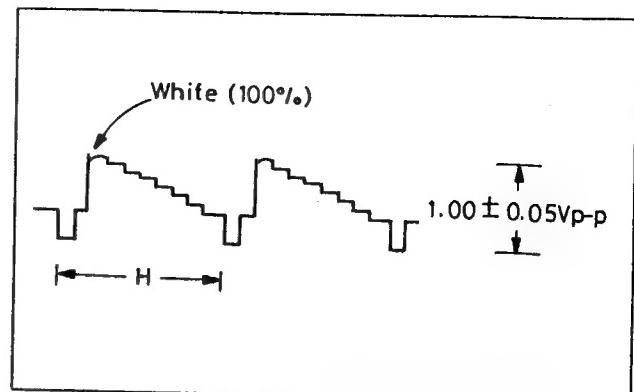


Fig. 3-17.

3-2-10. REC Y recording current adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Recording

Measuring point : TP112

Input signal : None

Tape to be used : MP type

VR to be adjusted : VR111

Adjustment procedure : Adjust VR111 so that the amplitude as shown in Fig. 3-18. is 330 ± 10 mVp-p.

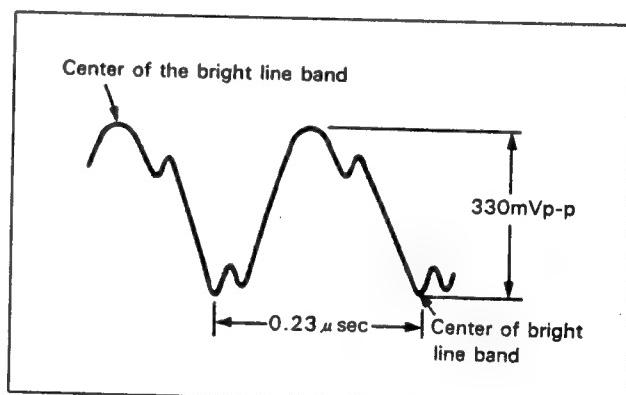


Fig. 3-18.

	Rotation direction of VR105
If exceeds the standard level	Counterclockwise (↺)
If below the standard level	Clockwise (↻)

3-2-11. REC C recording current adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Recording

Measuring point : TP112

Note : If the signal level is too low to read, use a 1 : 1 probe, or a coaxial cable (of 100 pF or less) connected in series with a 100 ohm resistor as shown in Fig. 3-19, instead of a 10 : 1 probe.

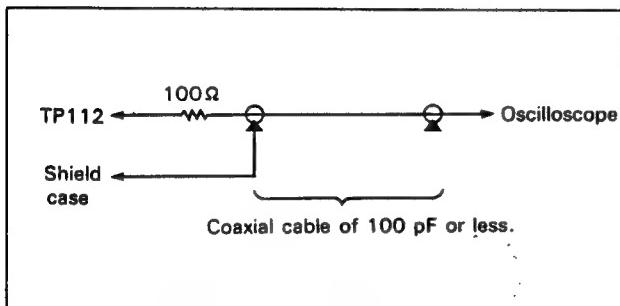


Fig. 3-19.

Input signal : Color bar (composite signal)

Tape to be used : MP type

VR to be adjusted : VR110

- Setup : • Short-circuit TP103 to TP108 (GND) with an alligator clip with lead.
- Short-circuit VD1 CL. Y checker land to ground, and VD1 CL. P checker land to ground, with a jump lead (see Fig. 3-21).
- Connect a 0.01 μF capacitor across Pin ⑪ and Pin ⑯ (GND) of VD1 IC201.

Procedure : Adjust VR110 so that the burst level is 52 mVp-p.

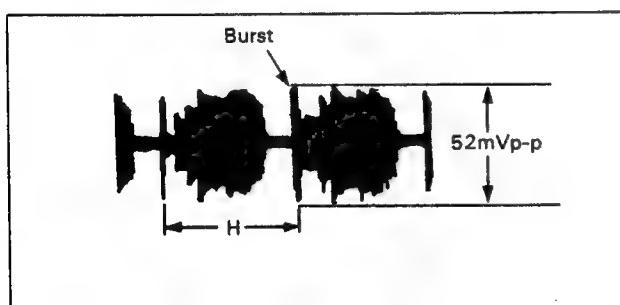


Fig. 3-20.

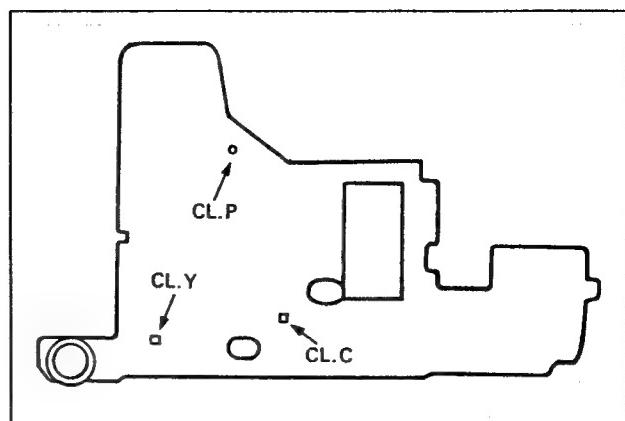


Fig. 3-21.

3-2-12. REC AFM recording current adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Recording

Measuring point : TP112

Note : If the signal level is too low to read, use a 1 : 1 probe, or a coaxial cable (of 100 pF or less) connected in series with a 100 ohm resistor as shown in Fig. 3-19, instead of a 10 : 1 probe.

Input signal : Not specified

Audio input signal : None

Tape to be used : MP type

VR to be adjusted : VR108

Setup : Short-circuit VD1 CL. Y checker land to ground, VD1 CL. C checker land to ground, and VD1 CL. P checker land to ground, with a jump lead (see Fig. 3-21).

Adjustment procedure : Adjust VR108 so that the amplitude as shown in Fig. 3-22 is 13 mVp-p.

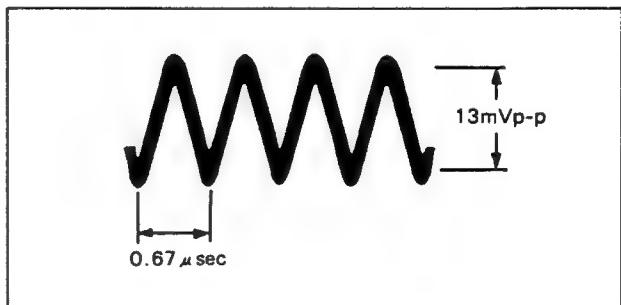


Fig. 3-22.

3-2-13. REC ATF recording current adjustment (VD1)

Measuring instrument : Oscilloscope

Mode : Recording

Measuring point : TP112

Note : If the signal level is too low to read, use a 1 : 1 probe, or a coaxial cable (of 100 pF or less) connected in series with a 100 ohm resistor as shown in Fig. 3-19, instead of a 10 : 1 probe.

Input signal : Not specified

Tape to be used : MP type

VR to be adjusted : VR109

Setup : Short-circuit VD1 CL. Y checker land to ground, and VD1 CL. C checker land to ground, with a jump lead (see Fig. 3-21). Connect a 0.01 μ F capacitor across Pin ⑪ and Pin ⑯ of VD1 IC201.

Adjustment procedure : Adjust VR109 so that the amplitude as shown in Fig. 3-23. is 15 mVp-p.

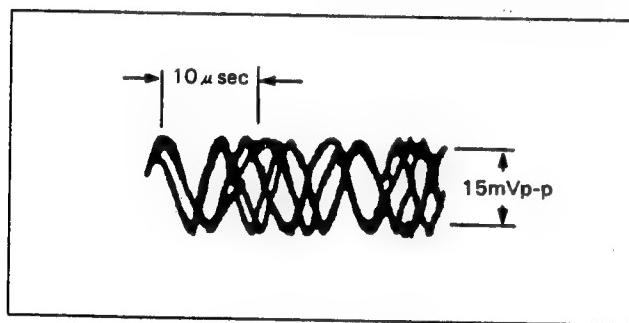


Fig. 3-23.

15

3-3. Audio System Adjustment

3-3-1. Audio system measuring setup

In addition to the video measuring equipment, connect the audio measuring equipment as shown in Fig. 3-24. Since the level of the audio input is very low, take necessary measures to avoid induction noise interference.

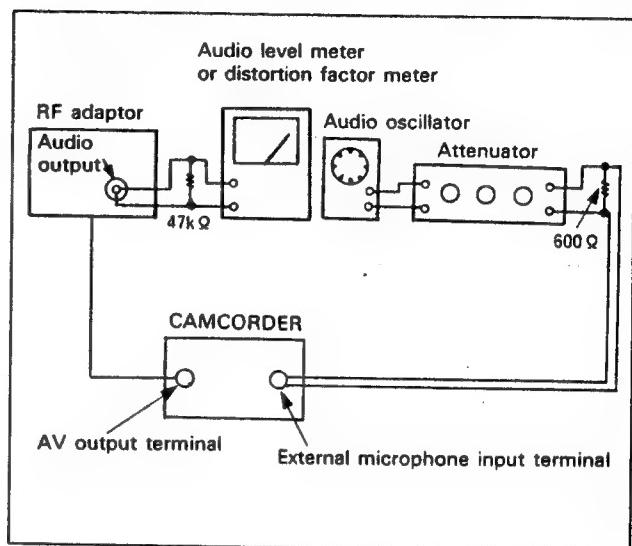


Fig. 3-24.

[Adjustment sequence]

- 1) FM audio carrier frequency check
- 2) FM audio deviation check
- 3) E-E output level check
- 4) Overall level characteristics check
- 5) Overall distortion factor check
- 6) Overall S/N check

3-3-2. FM audio carrier frequency check (VD1)

Measuring instrument : Frequency counter

Mode : Recording

Measuring point : Pin ⑪ of IC201

Audio input signal : None.

Adjustment procedure : Check that the frequency is 1.50 ± 0.01 MHz.

3-3-3. FM audio deviation check (VD1)

Measuring instrument : Audio level meter

Mode : Playback

Measuring point : RF adaptor (audio output)

Alignment tape : WR5-5CSP

Adjustment procedure : Check that the audio output level is -6 ± 2 dBs.

3-3-4. E-E output level check

Measuring instrument : Audio level meter

Mode : E-E or recording

Measuring point : RF adaptor (audio output)

Adjustment procedure : Check that the audio output level is -6 ± 3 dBs.

3-3-5. Overall level characteristics check

Measuring instrument : Audio level meter

Mode : Self-recording (playback for check)

Measuring point : RF adaptor (audio output)

Audio input signal : 400 Hz, -64 dBs

Tape to be used : MP type

Adjustment procedure : Check that the audio output level is -6 ± 3 dBs.

3-3-6. Overall distortion factor check

Measuring instrument : Distortion factor meter

Mode : Self-recording (playback for check)

Measuring point : RF adaptor (audio output)

Audio input signal : 400 Hz, -64 dBs

Tape to be used : MP type

Adjustment procedure : Check that the distortion factor is 1.0% or less.

3-3-7. Overall S/N check

Measuring instrument : Audio level meter

Mode : Self-recording (playback for check)

Measuring point : RF adaptor (audio output)

Audio input signal : None (Short-circuit the external microphone input terminals.)

Tape to be used : MP type

Adjustment procedure : Check that the difference between the playback level as determined in 3-3-5. and the playback level as determined in this check is 40 dBs or more.

4. EVF ADJUSTMENTS

4-1. Equipment Required

1. Oscilloscope
2. Frequency counter
3. Alignment tape

For performance check : WR5-5CSP
Part code : 8-967-995-47

4-2. Adjustment Priority

Note : The following adjustments must be made in the following order.

1. Horizontal frequency oscillation adjustment
2. Finder temporary adjustment
3. Centering adjustment
4. Horizontal size and finder tilt adjustments
5. Vertical size adjustment
6. Contrast adjustment
7. Brightness adjustment
8. Focus adjustment

4-3. Horizontal Frequency Oscillator Adjustment

Mode : E-E

Input signal : none

Frequency counter : Checker land shown in Fig. 4-1.

[Adjustment procedure]

Adjust VR001 for $16,000 \pm 50$ Hz.

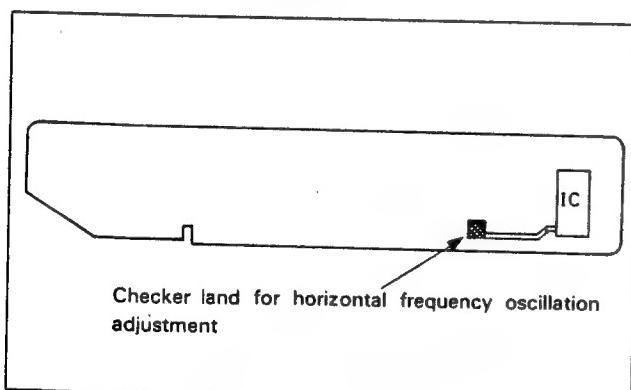


Fig. 4-1.

4-4. Finder Temporary Adjustment

Mode : Play

Alignment tape : Performance check tape (WR5-5CSP) (Monoscope)

[Adjusting procedure]

- 1) Adjust VR0005 (BRIGHT) for a suitable brightness.
- 2) Adjust VR0002 (V SIZE) for suitable size of picture.
- 3) Adjust VR0003 (CONTRAST), VR0005 (BRIGHT) and VR0004 (FOCUS) for a suitable screen size.

- screen size.
- 4) Shift DY in the direction of the arrow of Fig. 4-2. to eliminate gap B.

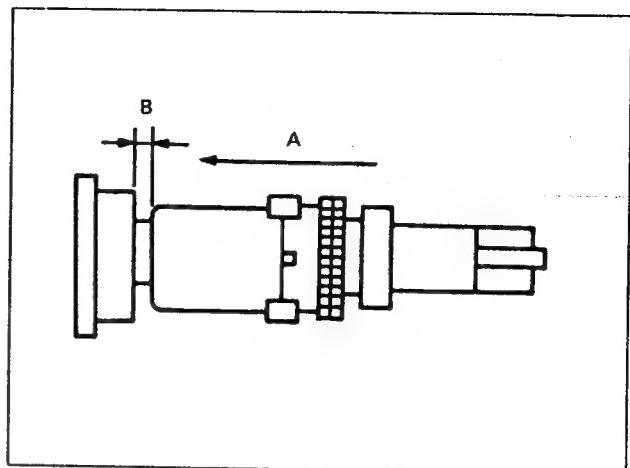


Fig. 4-2.

4-5. Centering Adjustment

Mode : Play

Alignment tape : Performance check tape (WR5-5CSP) (Monoscope)

[Adjustment procedure]

- 1) Rotate alignment magnet for a centered picture.
- 2) Lock the alignment magnet with lacquer enamel.

4-6. Finder Tilt Adjustment

- 1) Rotate the deflection coil so that tilting angle of the picture is $0 \pm 1.5^\circ$ or less.
- 2) Turn the yoke clamp clockwise to secure the deflection coil.

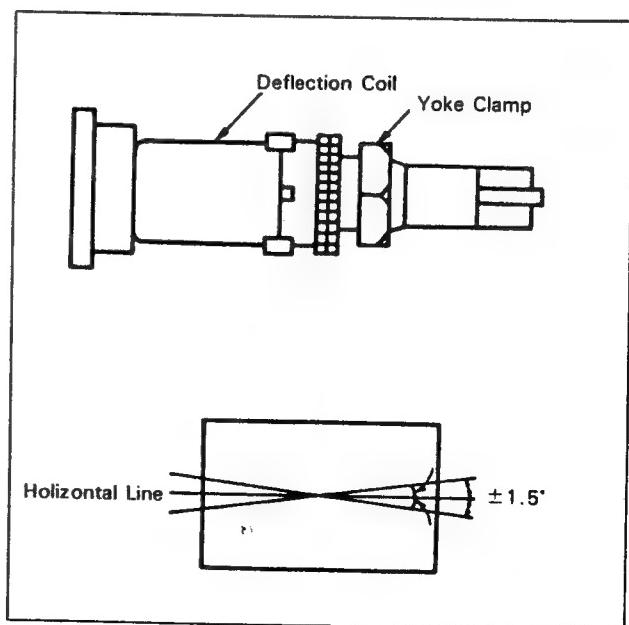


Fig. 4-3.

4-7. Vertical Size Adjustment

Mode : Play

Alignment tape : Performance check tape
(WR5-5CSP) (Monoscope)

[Adjustment Procedure]

Adjust VR0002 so that A and B are equal to each other in size as shown in Fig. 4-4. (circled pattern has true roundness).

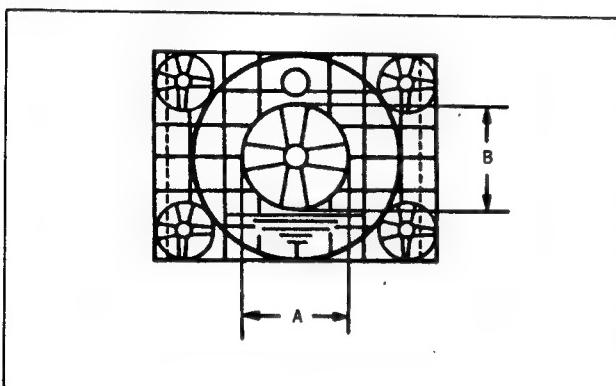


Fig. 4-5.

4-8. Contrast Adjustment

Mode : Play

Alignment tape : Performance check tape
(WR5-5CSP) (Monoscope)

[Adjustment Procedure]

Adjust VR0003 for 4 ± 0.1 V.

Note : When measured at the end of a vertical signal.

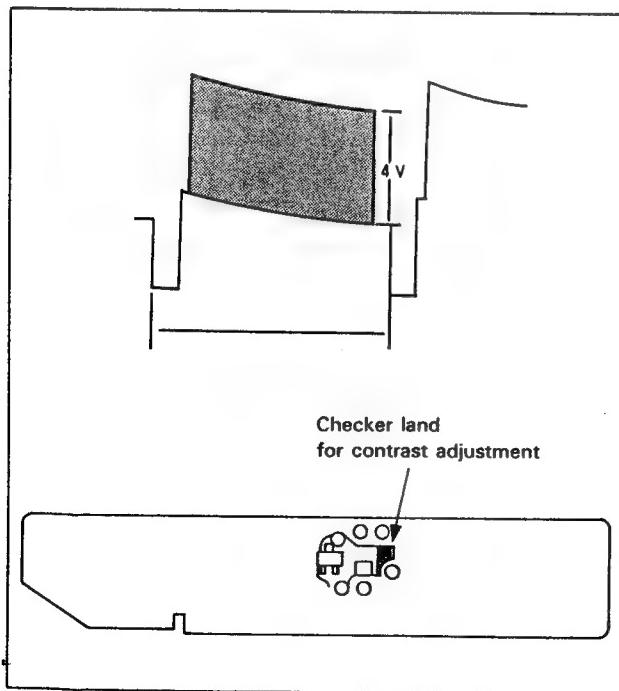


Fig. 4-5.

4-9. Brightness Adjustment

Mode : Play

Alignment tape : Performance check tape
(WR5-5CSP) (Monoscope)

[Adjustment Procedure]

Adjust VR0005 for a suitable intensity.

4-10. Focus Adjustment

Mode : Play

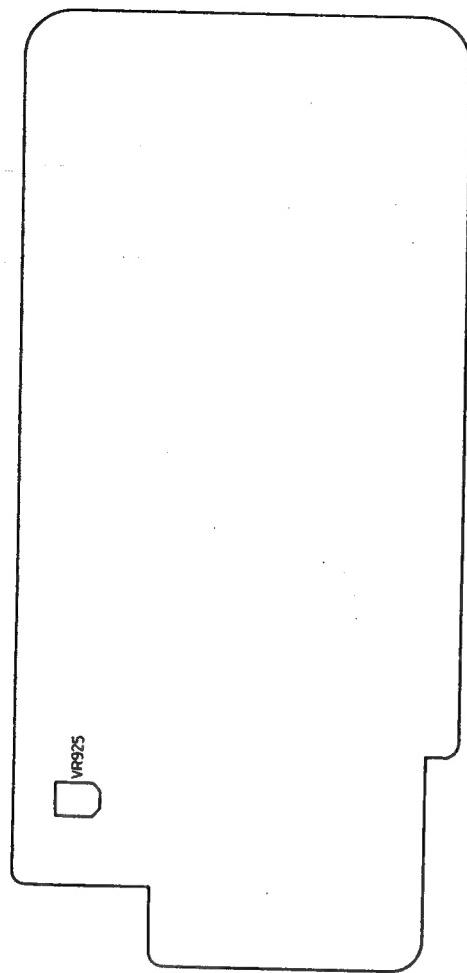
Alignment tape : Performance check tape
(WR5-5CSP) (Monoscope)

[Adjustment Procedure]

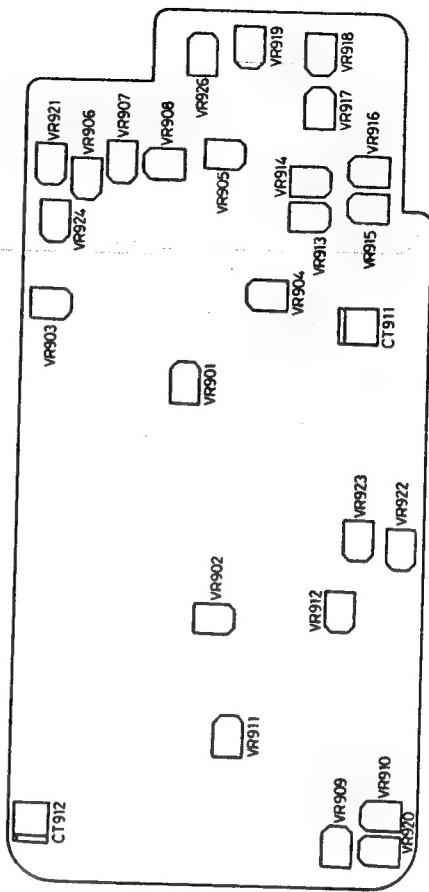
Adjust VR0004 for the highest resolution of a monoscope pattern.

5. SVR, TP location

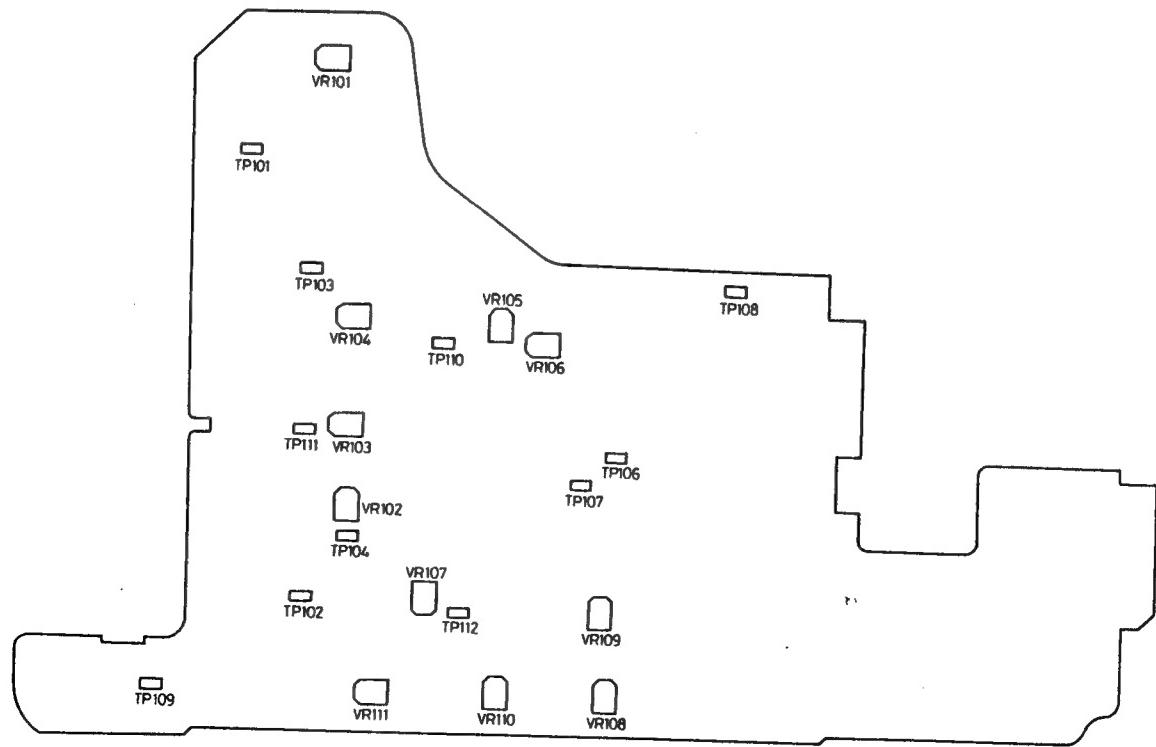
CA1 PCB (Side A)



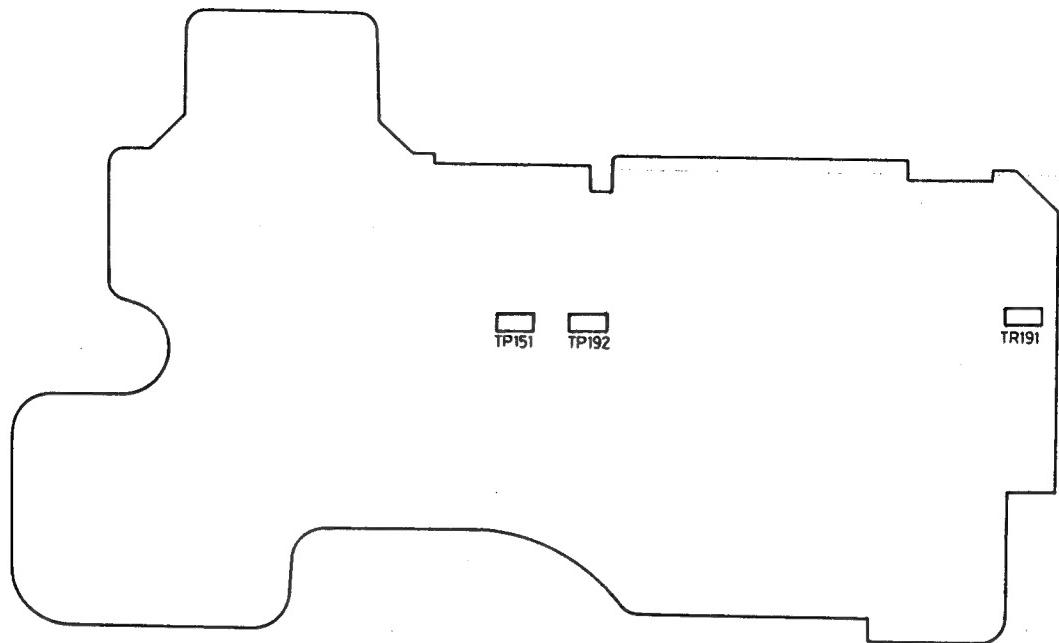
CA1 PCB (Side B)



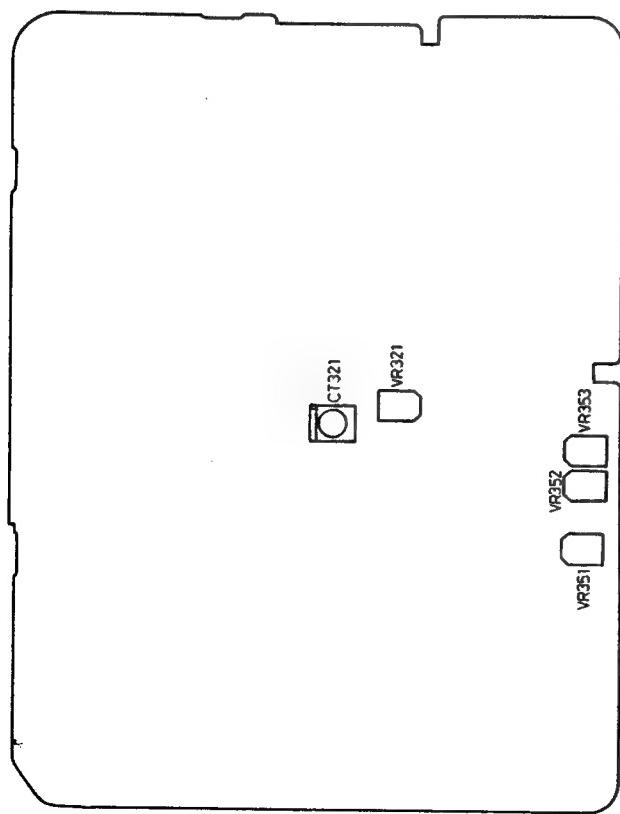
VD1 PCB (Side A)



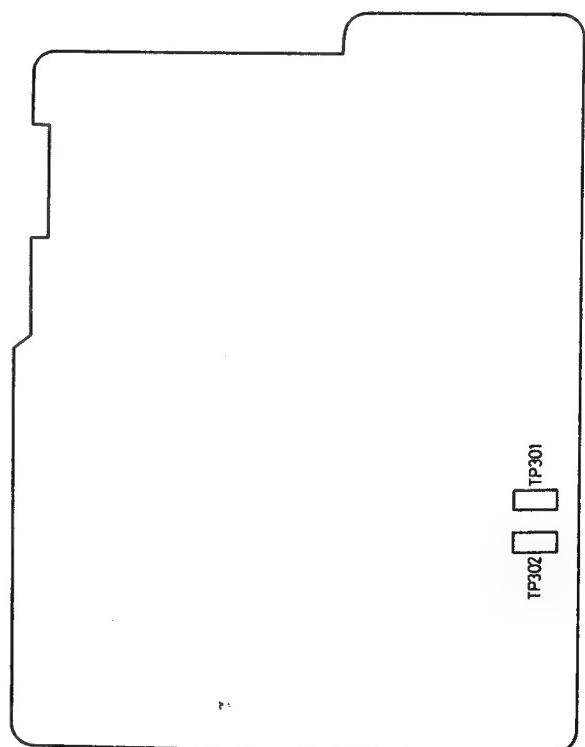
VP1 PCB (Side A)



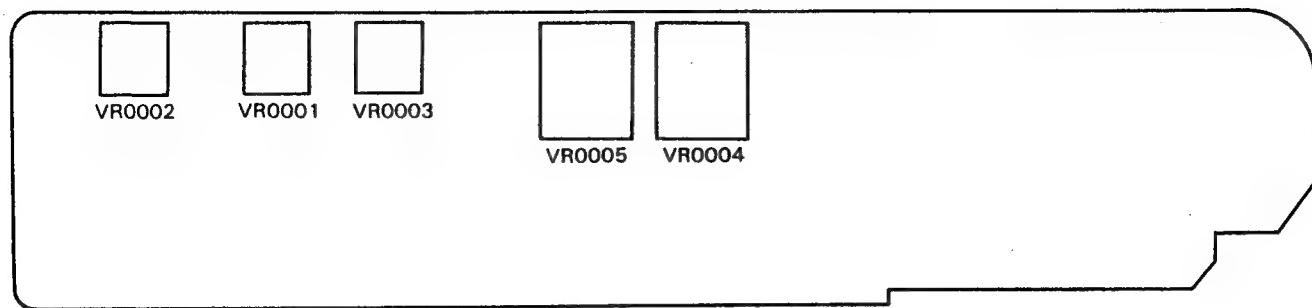
SV1 PCB (Side B)



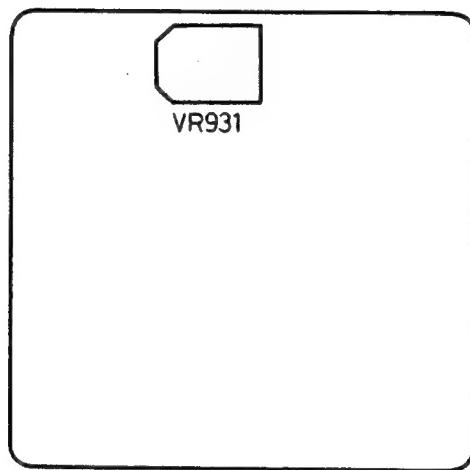
SY1 PCB (Side B)



VF1 PCB (Side A)



TC5 PCB (Side B)

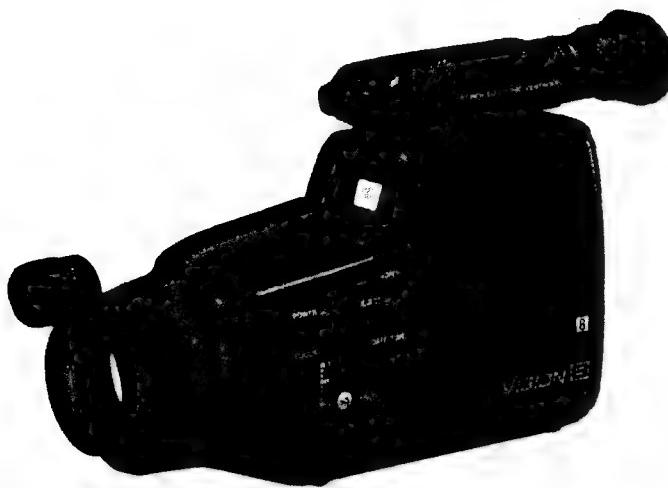


SANYO

Parts List

8mm Camcorder

VEM-S1P



Contents

	Page
ACCESSORIES	1
CABINET	2
PCB	3
CAMERA	4
MECHANISM 1	5
MECHANISM 2	6
MECHANISM 3	7
ELECTORICAL PARTS	
COMPL, VD1	8
COMPL, SV1	12
COMPL, SY1	14
COMPL, VP1	15
COMPL, TB1	16
COMPL, CA1	16
COMPL, CA2	18
COMPL, VF1	19
COMPL, TC1	20
COMPL, TC4	20

PRODUCT SAFETY NOTICE

The components designated by a symbol (Δ) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance wattage and voltage rating shown.

Note 1: The parts codes of accessories, cabinet and PCB differ depending on destination.
Therefore the following ID codes are applied.

Germany: G

UK: E

Australia: A

Spain: SP

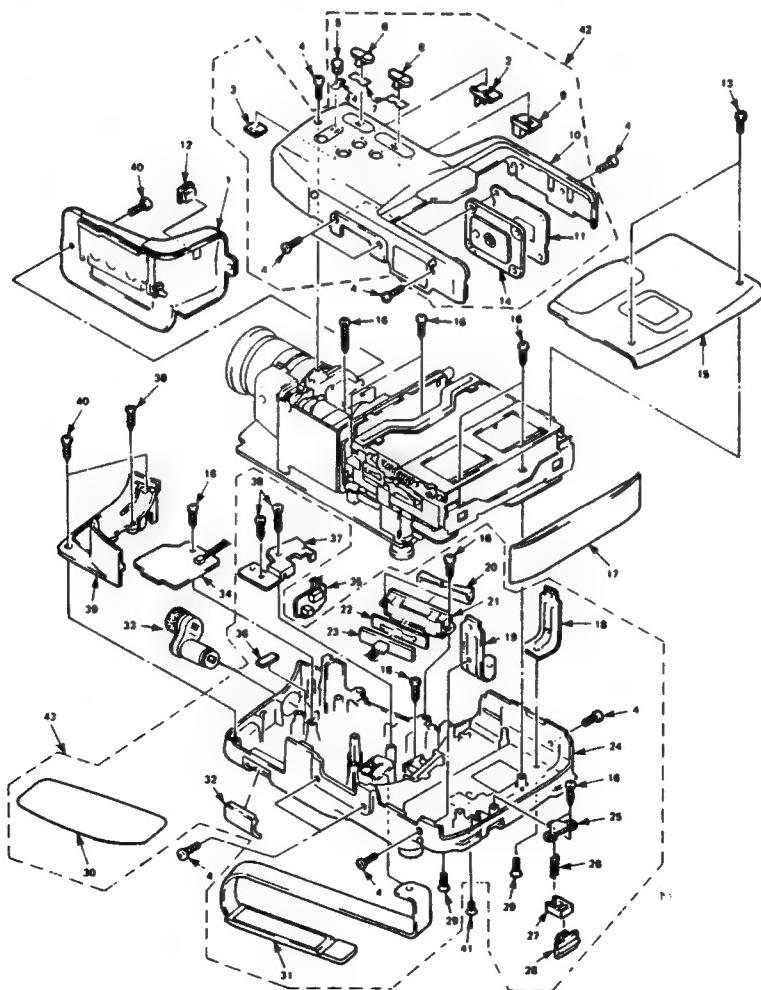
M-East: ME

Switzerland: SW

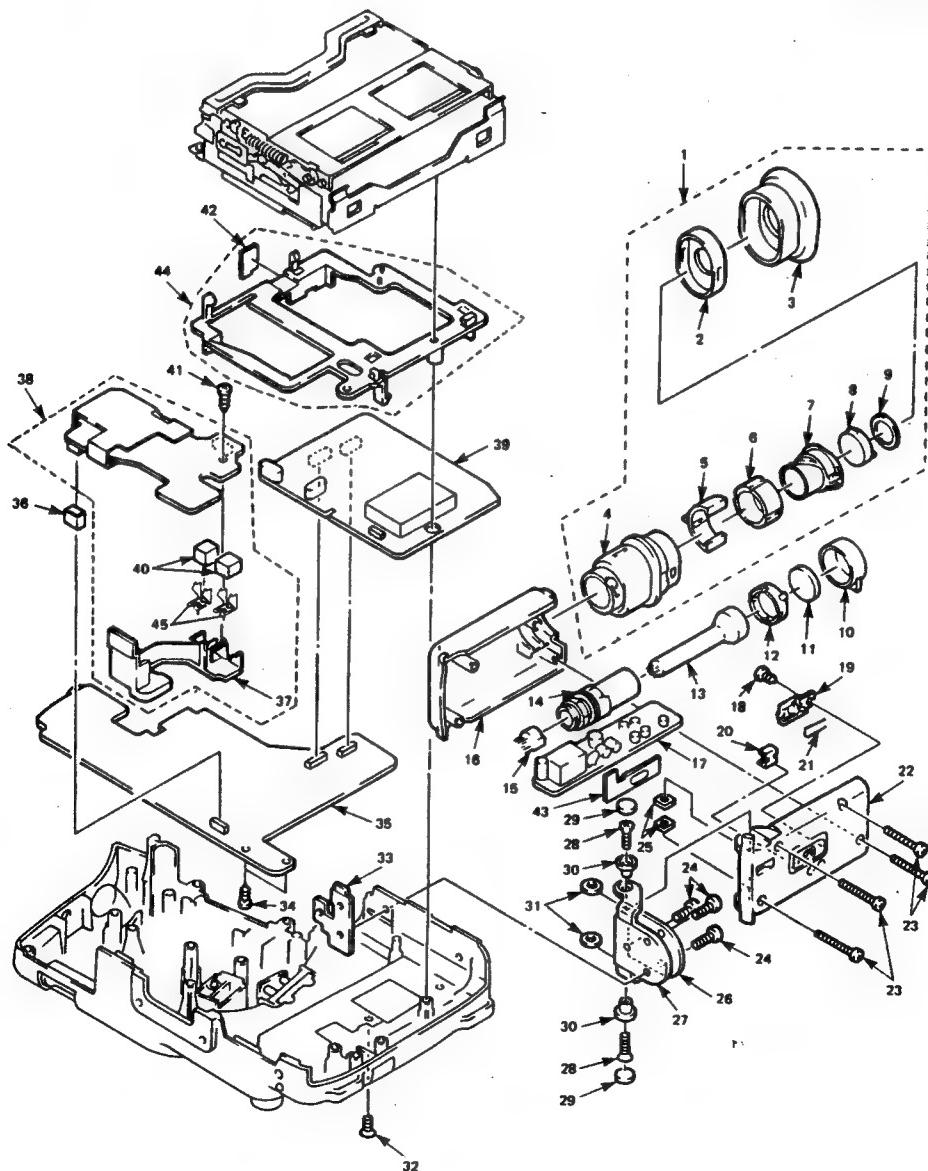
Note 2: There are two models for Spain, black cabinet model and white cabinet model.
The ID codes, B and W, are used to identify the black type and white type, respectively.

<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>
ACCESSORIES					
636 025 7658		ASSY,SOFT CASE PACKING(G,E,SW)	636 025 2059		INSTRUCTION MANUAL(G,SW)
636 024 8618		ADAPTOR,AC/DC(G,SP,ME,SW)	636 025 2066		INSTRUCTION MANUAL,ACC(G,SW)
636 024 8625		ADAPTOR,AC/DC(E)	636 025 7955		INSTRUCTION MANUAL(E)
636 024 8632		ADAPTOR,AC/DC(A)	636 025 7962		INSTRUCTION MANUAL,ACC(E)
636 019 7312		RF MODULATOR ASSY(G,SP,ME,SW)	636 025 7870		INSTRUCTION MANUAL(A)
636 012 7005		RF MODULATOR ASSY(E)	636 025 7887		INSTRUCTION MANUAL,ACC(A)
636 020 5277		RF MODULATOR ASSY(A)	636 025 7856		INSTRUCTION MANUAL(SP)
636 024 6300		NP55	636 025 7863		INSTRUCTION MANUAL,ACC(SP)
636 002 7732		CORD,DC OUT	636 025 7832		INSTRUCTION MANUAL(ME)
636 021 1919		BAND ASSY	636 025 7849		INSTRUCTION MANUAL,ACC(ME)
636 024 7239		CABLE,RF	636 018 9980		PLUG,AC ADAPTOR(G,SP,ME,SW)
636 026 2669		CORD,POWER			

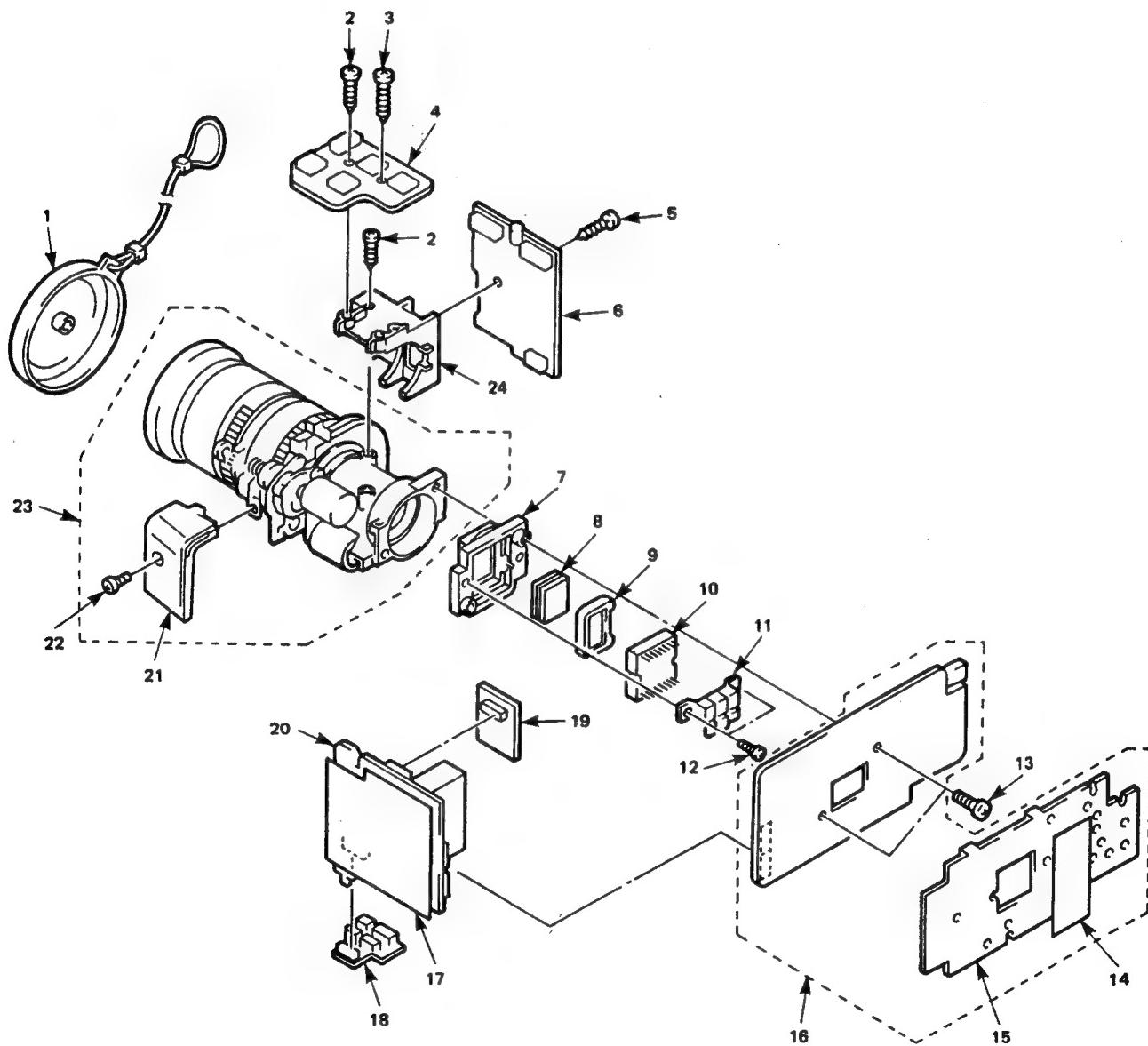
<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>
CABINET					
1	636 024 5709	ASSY,PANEL,CONTROL (G.E.A.SP:B,ME,SW)	24	636 026 8463	ASSY,CABINET,RIGHT(SP:W)
1	636 026 8494	ASSY,PANEL,CONTROL(SP:W)	24	636 025 8907	ASSY,CABINET,RIGHT (G.E.A.SP:B,ME,SW)
2	636 022 5008	SLIDE,POWER	25	636 022 4759	HOLDER
3	636 022 5022	SLIDE,FOCUS	26	636 014 6365	SPRING COIL
4	412 032 8402	SPECIAL SCREW	27	636 022 5107	CATCHER
5	636 025 2547	FOCUS KNOB	28	636 022 4612	BATT.EJECT KNOB
6	636 022 4582	POWER KNOB	29	412 022 5701	SCR FLT 2X4
7	636 025 3698	SPACER	30	636 022 5114	ASSY,PAD
8	636 022 4599	EJECT KNOB	31	636 022 5121	ASSY,BELT
9	636 022 5015	SLIDE,EJECT	32	636 022 4469	LIO,LITHIUM BATT.
10	636 025 8884	ASSY,CABINET,LEFT(G.E.A.SP:B,ME,SW)	33	636 025 5258	ASSY,MICROPHONE
10	636 026 8449	ASSY,CABINET,LEFT(SP:W)	34	636 023 6042	COMPL,TB-2
11	636 022 4674	BRACKET	35	636 023 6035	COMPL,TB-1
12	636 022 4537	WINDOW	36	636 024 8106	SPACER
13	411 101 8107	SCR PAN PCS 1.7X8	37	636 022 5534	HOLDER
14	636 024 0926	ASSY,STAND	38	411 025 4506	SCR S-TPG BIN 2X8
15	636 026 8517	ASSY,LID LEFT (SP:B,A)	39	636 022 4421	COVER(G.E.A.SP:B,ME,SW)
15	636 026 8500	ASSY,LID LEFT (SP:W)	39	636 026 9460	COVER(SP:W)
15	636 026 0115	ASSY,LID,LEFT(G.SW.E,ME)	40	411 025 4308	SCR S-TPG BIN 2X6
16	411 025 4209	SCR S-TPG BIN 2X6	41	411 126 5709	SCR S-TPG FLT 2X5
17	636 024 2739	ASSY,LID,BACK(G.E.A.SP:B,ME,SW)	42	636 025 8877	COMPL,CABINET,LEFT (G.E.A.SP:B,ME,SW)
17	636 026 8524	ASSY,LID BACK (SP:W)	42	636 026 8432	COMPL,CABINET,LEFT(SP:W)
18	636 022 4650	BRACKET	43	636 025 8891	COMPL,CABINET,RIGHT (G.E.A.SP:B,ME,SW)
19	636 022 4667	BRACKET	43	636 026 8456	COMPL,CABINET,RIGHT(SP:W)
20	636 013 5130	PUSH BUTTON	44	636 026 3499	SPACER
21	636 014 0554	BRACKET SWITCH			
22	636 014 1216	RUBBER CONTACT			
23	636 023 6332	COMPL.TC-2			



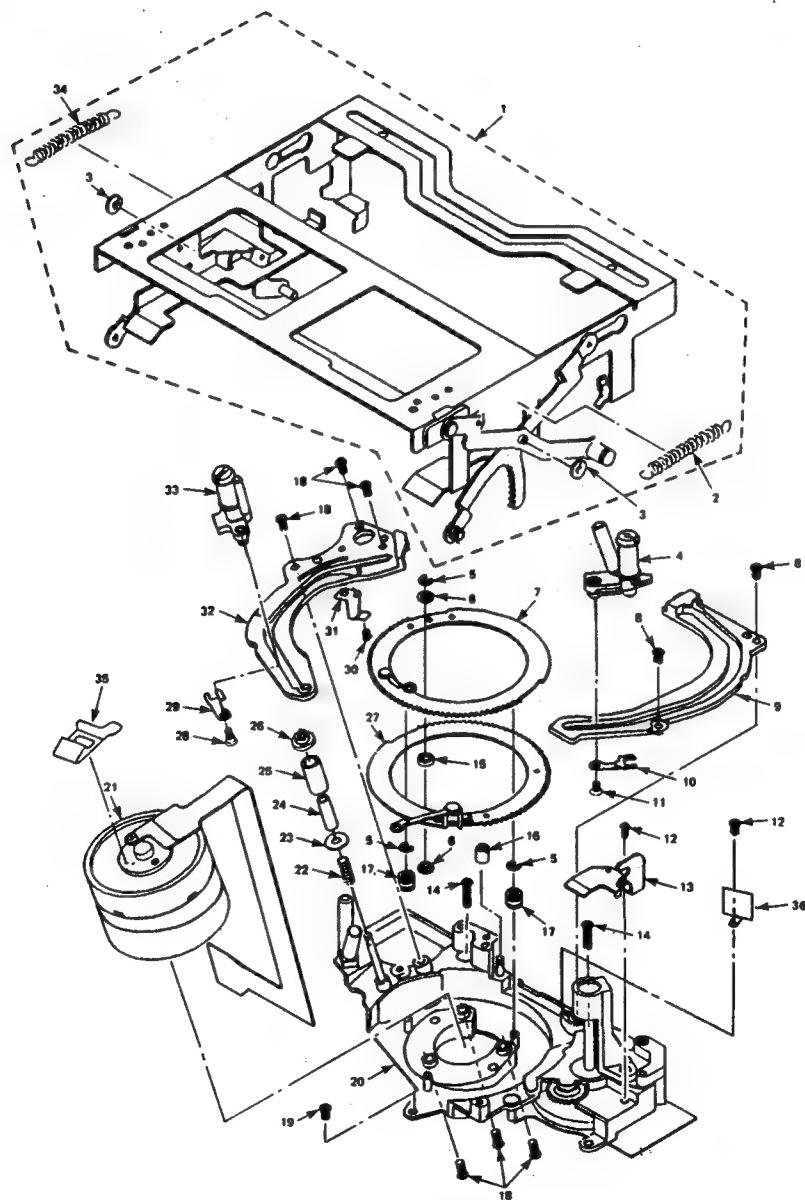
LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
PCB					
1	636 024 3200	COMPL.SLEEVE	22	636 022 4391	CABINET,BOTTOM(G.E.A.SP:B.ME,SW)
2	636 014 2268	FIXER	22	636 026 8630	CABINET,BOTTOM(SP:W)
3	636 013 7714	HOOD	23	411 125 5809	SCR TPG PAN PCS 1.7X8
4	636 024 2975	SLEEVE	24	412 032 8501	SPECIAL SCREW
5	636 013 5543	SLIDE KNOB	25	636 022 5091	GUIDE
6	636 014 3777	RING	26	636 022 4957	ADHESIVE
7	636 013 3204	FRAME	27	636 024 3194	ASSY,BRACKET
8	636 012 7777	LENS ASSY	28	412 033 8609	SPECIAL SCREW
9	636 013 7424	HEET	29	636 022 4773	CAP
10	636 023 1450	RING	30	636 022 5084	BUSH
11	636 023 1429	SPACER	31	636 022 4933	SPACER
12	636 023 1467	RING	32	411 112 6604	SCR S-TPG FLT 2X4
13	413 006 6806	CRT C1M52P45	33	636 022 5527	BRACKET
14	636 024 3033	YOKE,DEFLECTION	34	411 025 4209	SCR S-TPG BIN 2X6
OR	636 024 3040	YOKE,DEFLECTION	35	636 025 2585	COMPL.VD-1
15	636 024 3118	CORD	36	636 023 4352	PLUG,10P
16	636 022 4384	CABINET,TOP(G.E.A.SP:B.ME,SW)	37	636 022 4711	HOLDER
16	636 026 8562	CABINET,TOP(SP:W)	38	636 023 5984	COMPL.VP-1
17	636 026 8036	COMPL.VF-1	39	636 025 1298	COMPL.SV-1
18	411 022 7708	SCR S-TPG PAN 2X5	40	636 025 4848	PAD
19	636 022 4766	HOLDER	41	411 025 9006	SCR S-TPG PAN 2X4
20	636 023 1443	CLAMP	42	636 022 4919	INSULATOR
21	636 022 4971	SPRING	43	636 024 6096	EARTH
			44	636 025 5227	ASSY,HOLDER
				636 024 1817	ASSY,PLATE SPRING



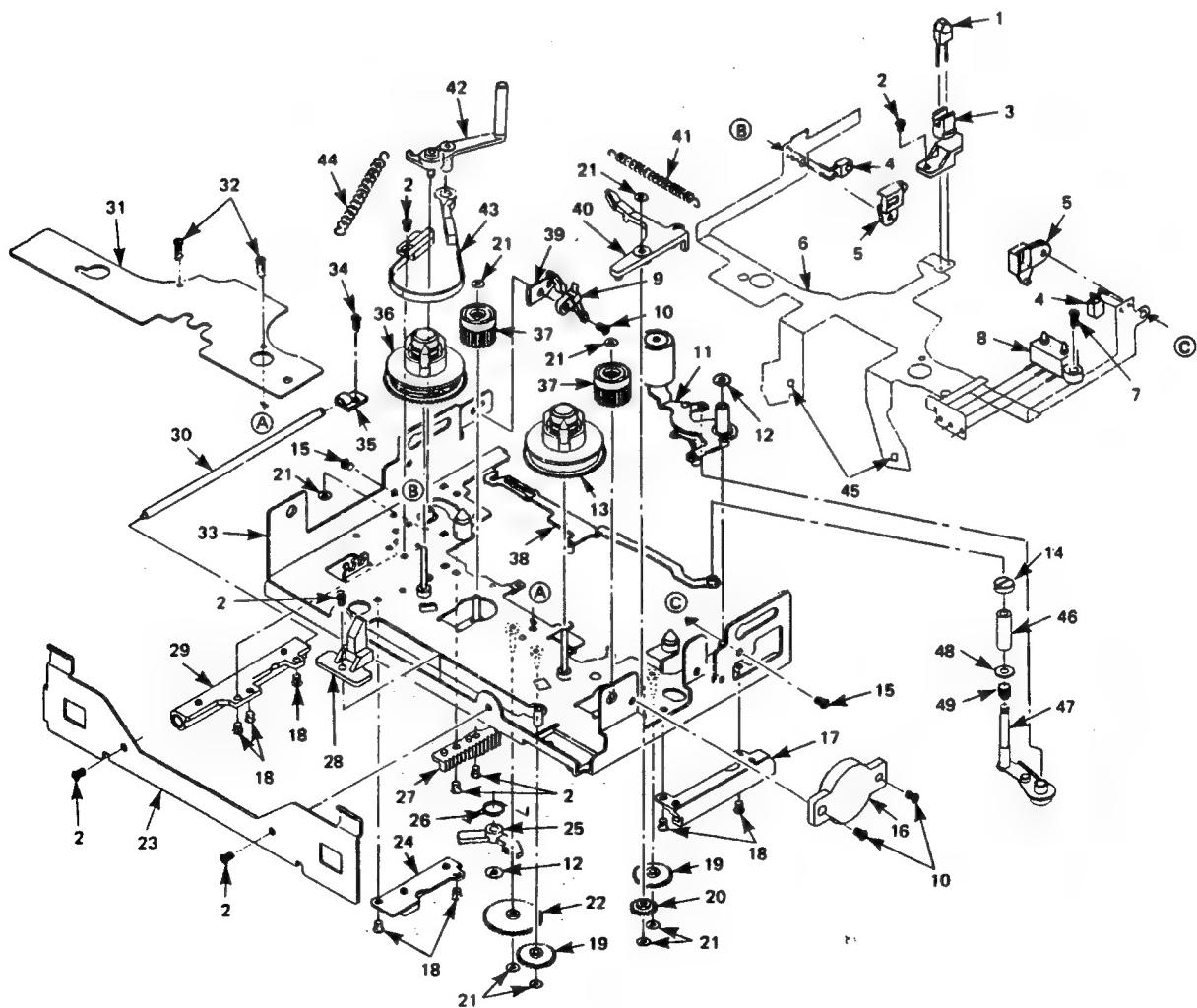
LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
CAMERA					
1	636 025 1373	CAP	12	411 020 0800	SCR PAN PCS 1.7X4
2	411 025 3806	SCR S-TPG BIN 2X4	13	411 038 8003	SCR PAN 2X14
3	411 025 3707	SCR S-TPG BIN 2X12	14	636 025 0260	INSULATOR
4	636 026 7244	COMPL.TC-1	15	636 022 4834	SHIELD
5	411 025 9204	SCR S-TPG PAN 2X6	16	636 025 1571	COMPL.CA-1
6	636 023 5960	COMPL.SY-1	17	636 022 4926	INSULATOR
7	636 022 2762	BRACKET	18	636 023 6349	COMPL.TC-3
8	636 023 4376	OPTICAL FILTER	19	636 025 8860	COMPL.TC-4
OR	636 023 4383	OPTICAL FILTER	20	636 025 1588	COMPL.CA-2
9	636 022 2779	SPACER	21	636 022 4438	COVER
10	409 179 5005	IC LC9967(CCD)	22	411 127 6408	SCR S-TPG PAN PCS 2X4
11	636 022 2793	PLATE SPRING	23	636 022 3622	ASSY.LENS
			24	636 022 4735	HOLDER



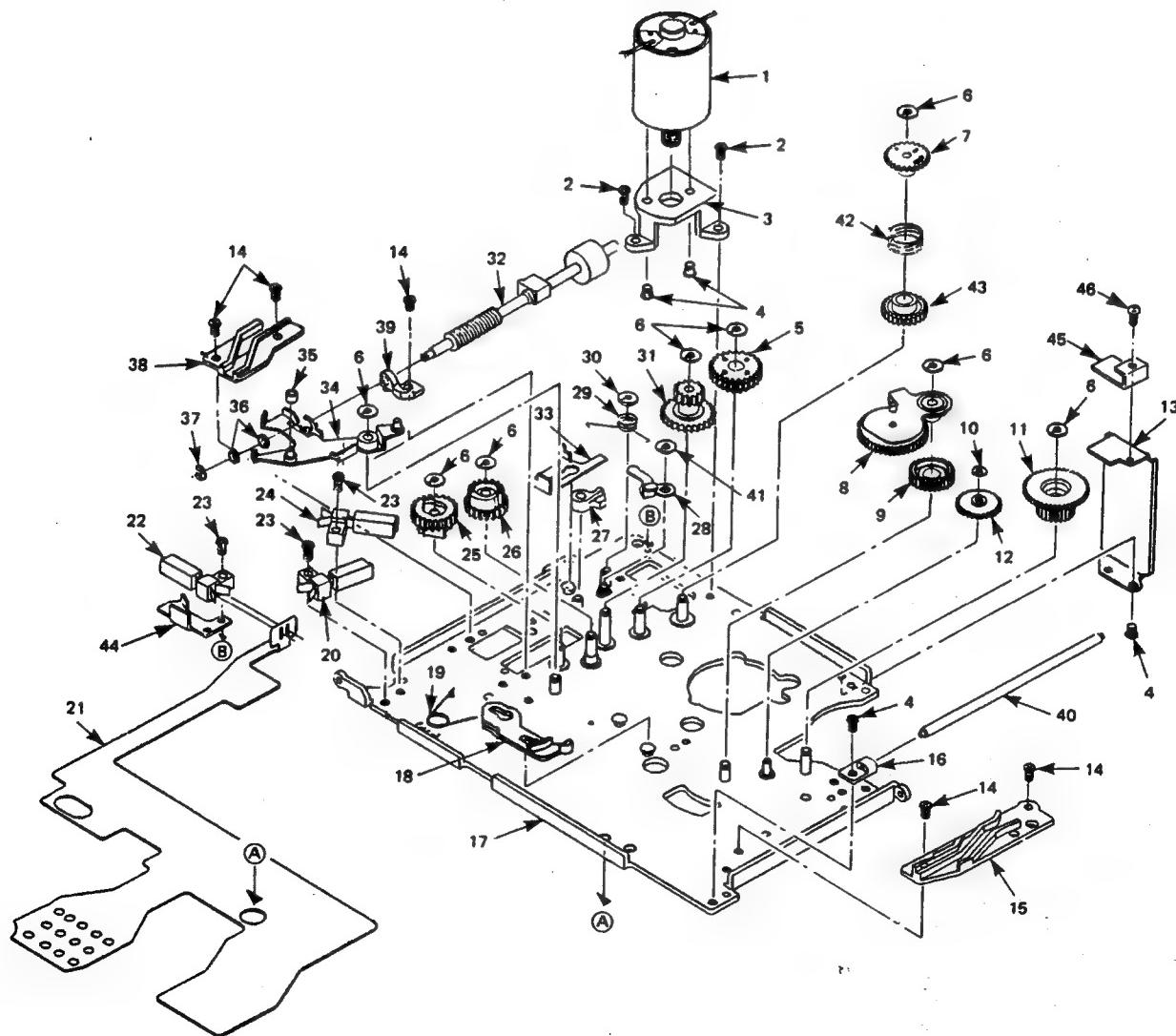
<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>
MECHANISM 1					
1	636 019 5905	CASSETTE MECHANISM	18	411 018 3806	SCR PAN PCS 1.7X4
2	636 019 8487	SPRING,ARM	19	411 018 1901	SCR PAN PCS 1.7X2.5
3	412 028 3008	SPECIAL WASHER	20	636 024 0131	COMPL.BASE
4	636 021 2015	COMPL.GUIDE,TAKE UP	21	636 021 0301	CYLINDER
5	411 015 7104	RING E 1.2	22	636 019 5998	SPRING
6	636 019 6117	ROLLER	23	636 020 1170	RING
7	636 020 4829	ASSY,GEAR,SUPPLY	24	636 027 3832	PIPE
8	411 018 3806	SCR PAN PCS 1.7X4	25	636 019 5882	ASSY,GUIDE
9	636 019 6544	GUIDE,RAIL,TAKE UP	26	636 019 6575	GUIDE
10	636 019 6025	PLATE,GUIDE,TAKE UP	27	636 020 4812	ASSY,GEAR,TAKE UP
11	411 017 1803	SCR FLT PCS 1.4X3	28	636 026 3956	PIN
12	411 099 8905	SCR PAN PCS 1.7X2	29	636 019 6032	PLATE
13	636 025 0109	BRACKET	30	411 099 6703	SCR PAN PCS 1.4X2
14	411 018 5305	SCR PAN PCS 1.7X6	31	636 019 6001	PLATE SPRING
15	636 019 6131	ROLLER	32	636 019 6537	GUIDE,RAIL,SUPPLY
16	636 019 6452	SLEEVE	33	636 021 2008	COMPL.GUIDE,SUPPLY
17	636 023 7735	ROLLER	34	636 022 3875	SPRING,ARM
			35	636 025 8143	ASSY,GUIDE
			36	636 020 0142	SENSOR,DEW



LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
MECHANISM 2					
1	407 105 3507	LED GL452	24	636 019 4311	CAM
OR	407 016 0206	LED GL450S	25	636 019 4038	LEVER
2	411 099 8905	SCR PAN PCS 1.7X2	26	636 019 3901	SPRING
3	636 019 3697	BRACKET,SENSOR	27	636 019 3789	BRACKET
4	407 101 5802	PHOTO DIODE PT480FI	28	636 019 3680	BRACKET
5	636 019 3666	BRACKET,SENSOR	29	636 019 5585	ASSY,BRACKET
6	636 021 0950	F-PCB,REEL	30	636 019 4625	PIN,SLIDE JIKU(L)
7	411 018 7408	SCR PAN PCS 2X4	31	636 024 0612	BLIND
8	636 020 0180	SW,SPECIAL	32	411 099 6703	SCR PAN PCS 1.4X2
9	636 020 0173	SW,SPECIAL	33	636 025 8914	ASSY,CHASSIS,REEL
10	411 099 0701	SCR PAN PCS 1.7X3	34	411 019 9401	SCR PAN PCS 1.7X2.5
11	636 019 5783	ASSY,LEVER	35	636 019 3734	BRACKET
12	412 028 3008	SPECIAL WASHER	36	636 019 5806	ASSY,REEL,SUPPLY
13	636 019 5813	ASSY,REEL,TAKE UP	37	636 019 7329	ASSY,GEAR
14	636 019 6407	SLEEVE	38	636 019 5745	ASSY,LEVER
15	411 030 2504	SCR TPG PAN PCS 1.7X4	39	636 024 0902	BRAKCET,SW COVER
16	636 021 2688	DAMPER	40	636 020 4805	ASSY,LEVER
17	636 019 3758	BRACKET	41	636 019 3819	SPRING
18	411 018 1901	SCR PAN PCS 1.7X2.5	42	636 019 5721	ASSY,LEVER,BT
19	636 019 4120	GEAR	43	636 019 5844	ASSY,BELT,BT
20	636 019 4168	GEAR	44	636 019 3826	SPRING
21	412 028 2803	SPECIAL WASHER	45	407 094 1409	REEL PALATE SENSOR
22	636 019 4175	GEAR	46	636 019 6483	GUIDE
23	636 022 3417	BRACKET	47	636 019 5776	ASSY,LEVER
			48	636 019 6339	RING
			49	636 019 5974	SPRING



LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
MECHANISM 3					
1	636 027 1081	ASSY.MOTOR,LOADING	23	411 018 4100	SCR PAN PCS 1.7X4.5
2	411 099 0701	SCR PAN PCS 1.7X3	24	636 025 1229	SW,SPECIAL
3	636 019 3765	BRACKET	25	636 019 4229	GEAR,LOADING
4	411 099 8905	SCR PAN PCS 1.7X2	26	636 021 1988	ASSY.GEAR
5	636 021 1995	ASSY.GEAR,LOADING	27	636 019 3956	LEVER
6	412 028 3008	SPECIAL WASHER	28	636 019 4014	LEVER
7	636 019 4243	GEAR,LOADING	29	636 026 3642	SPRING
8	636 019 5790	ASSY.GEAR.IDLER	30	412 030 0804	SPECIAL WASHER
9	636 019 4137	GEAR	31	636 019 4236	GEAR,LOADING
10	412 028 2803	SPECIAL WASHER	32	636 019 5868	ASSY.ROD
11	636 019 4113	GEAR	33	636 019 4083	LINK
12	636 019 4120	GEAR	34	636 019 5738	ASSY.LEVER
13	636 020 1231	BRACKET	35	636 019 4922	SLEEVE
14	411 018 1901	SCR PAN PCS 1.7X2.5	36	636 019 4854	RING
15	636 019 6100	CAM	37	411 015 7104	RING E 1.2
16	636 019 3734	BRACKET	38	636 019 3727	BRACKET
17	636 025 9836	ASSY.CHASSIS.MAIN	39	636 019 3772	BRACKET
18	636 020 1279	SLIDE	40	636 019 4632	PIN,SLIDE JIKU(R)
19	636 020 1262	SPRING	41	412 032 9003	SPECIAL WASHER
20	636 020 0166	SW,SPECIAL	42	636 019 3833	SPRING
21	636 021 0967	F-PCB,MAIN	43	636 019 4250	GEAR,LOADING
22	636 020 0159	SW,SPECIAL	44	636 026 2652	BRACKET
			45	636 026 2645	BRACKET
			46	411 099 6703	SCR PAN PCS 1.4X2



ELECTRICAL PARTS

NOTE;

*Materials of Capacitors and Resistors are abbreviated as follows;

Resistors		TA-SOLID	Tantalum Solid Capacitor
MT-FILE	Metal Film Resistor	AL-SOLID	Aluminum Solid Capacitor
MT-GLAZE	Metal Glaze Resistor	NP-ELECT	Non-Polarized Electrolytic Capacitor
OXIDE-MT	Oxide Metal Film Resistor	OS-SOLID	Aluminum Solid Capacitors with Organic Semiconductive
Capacitors		DL-ELECT	Electrolytic Capacitor Double Layered Electrolytic Capacitor
MT-POLYEST	Metalized Polyester Capacitor		
MT-COMPO	Metalized Composite Capacitor		

*Tolerance of Capacitor(10pF over) and Resistor are noted with follow symbols.

F ±1%	G ±2%	J ±5%	K ±10%
M ±20%	N ±30%	Z +80% ~ -20%	D ±0.5%

LOCATION	PARTS NO.	DESCRIPTION			LOCATION	PARTS NO.	DESCRIPTION		
C0MPL.VD-1					C1048	403 105 9105	ELECT	10U M	16V
COMPL.NO.	636 025 2585				OR	403 162 4709	ELECT	10U M	16V
	636 026 0726	SPACER			C1049	403 155 1807	CERAMIC	0.01U K	25V
	636 026 0146	SHIELD,SIDE A			C1050	403 134 7400	CERAMIC	1U Z	16V
	636 021 0332	SHIELD,SIDE B			C1051	403 134 7400	CERAMIC	1U Z	16V
B1001 Δ	636 023 4673	UNIT,DC-DC CONVERTOR			C1052	403 114 5600	TA-SOLID	3.3U M	6.3V
					C1053	403 114 5600	TA-SOLID	3.3U M	6.3V
					C1054	403 105 9105	ELECT	10U M	16V
					OR	403 162 4709	ELECT	10U M	16V
C1001	403 114 5600	TA-SOLID	3.3U M	6.3V	C1056	403 155 1807	CERAMIC	0.01U K	25V
C1003	403 149 7303	CERAMIC	0.47U Z	16V	C1057	403 113 3805	CERAMIC	1000P K	50V
C1005	403 105 9105	ELECT	10U M	16V	C1058	403 134 7400	CERAMIC	1U Z	16V
OR	403 162 4709	ELECT	10U M	16V	C1060	403 134 7400	CERAMIC	1U Z	16V
C1006	403 155 1807	CERAMIC	0.01U K	25V	C1061	403 105 9105	ELECT	10U M	16V
C1007	403 119 6909	ELECT	22U M	6.3V	OR	403 162 4709	ELECT	10U M	16V
OR	403 162 4006	ELECT	22U M	6.3V	C1063	403 134 7400	CERAMIC	1U Z	16V
C1010	403 089 4806	TA-SOLID	10U M	4V	C1064	403 026 7501	CERAMIC	470P J	50V
C1011	403 155 1807	CERAMIC	0.01U K	25V	C1065	403 024 7107	CERAMIC	390P J	50V
C1012	403 149 7303	CERAMIC	0.47U Z	16V	C1066	403 105 9105	ELECT	10U M	16V
C1014	403 158 7608	TA-SOLID	4.7U M	6.3V	OR	403 162 4709	ELECT	10U M	16V
C1015	403 148 2705	ELECT	220U M	4V	C1069	403 134 7400	CERAMIC	1U Z	16V
C1016	403 155 1807	CERAMIC	0.01U K	25V	C1070	403 155 1807	CERAMIC	0.01U K	25V
C1017	403 119 6909	ELECT	22U M	6.3V	C1071	403 155 1807	CERAMIC	0.01U K	25V
OR	403 162 4006	ELECT	22U M	6.3V	C1072	403 139 7108	CERAMIC	12P J	50V
C1019	403 114 5402	TA-SOLID	2.2U M	10V	C1073	403 157 3601	CERAMIC	100P J	50V
C1020	403 134 7400	CERAMIC	1U Z	16V	C1074	403 157 2901	CERAMIC	47P J	50V
C1023	403 090 2006	TA-SOLID	6.8U M	6.3V	C1075	403 134 7400	CERAMIC	1U Z	16V
C1024	403 155 1807	CERAMIC	0.01U K	25V	C1077	403 134 7400	CERAMIC	1U Z	16V
C1025	403 149 7303	CERAMIC	0.47U Z	16V	C1078	403 149 7303	CERAMIC	0.47U Z	16V
C1026	403 114 5600	TA-SOLID	3.3U M	6.3V	C1079	403 157 4202	CERAMIC	220P J	50V
C1027	403 155 1807	CERAMIC	0.01U K	25V	C1080	403 157 3601	CERAMIC	100P J	50V
C1028	403 134 7400	CERAMIC	1U Z	16V	C1081	403 157 3304	CERAMIC	68P J	50V
C1029	403 155 1807	CERAMIC	0.01U K	25V	C1082	403 157 2901	CERAMIC	47P J	50V
C1030	403 119 6909	ELECT	22U M	6.3V	C1084	403 155 1807	CERAMIC	0.01U K	25V
C1033	403 157 8309	CERAMIC	0.1U Z	16V	C1085	403 113 4109	CERAMIC	2200P K	50V
C1036	403 155 1807	CERAMIC	0.01U K	25V	C1086	403 155 1609	CERAMIC	33P J	50V
C1037	403 134 7400	CERAMIC	1U Z	16V	C1087	403 155 1807	CERAMIC	0.01U K	25V
C1038	403 119 6909	ELECT	22U M	6.3V	C1088	403 114 5600	TA-SOLID	3.3U M	6.3V
OR	403 162 4006	ELECT	22U M	6.3V	C1089	403 155 1807	CERAMIC	0.01U K	25V
C1039	403 157 8309	CERAMIC	0.1U Z	16V	C1090	403 157 2802	CERAMIC	43P J	50V
C1040	403 134 7400	CERAMIC	1U Z	16V	C1091	403 155 4204	CERAMIC	15P J	50V
C1041	403 114 5600	TA-SOLID	3.3U M	6.3V	C1094	403 157 3403	CERAMIC	75P J	50V
C1042	403 119 6909	ELECT	22U M	6.3V	C1095	403 155 1500	CERAMIC	180P J	50V
OR	403 162 4006	ELECT	22U M	6.3V	C1096	403 155 1807	CERAMIC	0.01U K	25V
C1043	403 157 8309	CERAMIC	0.1U Z	16V	C1098	403 157 3403	CERAMIC	75P J	50V
C1044	403 134 7400	CERAMIC	1U Z	16V	C1099	403 155 1609	CERAMIC	33P J	50V
C1045	403 089 4806	TA-SOLID	10U M	4V	C1100	403 157 8309	CERAMIC	0.1U Z	16V
C1046	403 119 6909	ELECT	22U M	6.3V	C1101	403 020 5503	CERAMIC	270P J	50V
OR	403 162 4006	ELECT	22U M	6.3V	C1102	403 155 1807	CERAMIC	0.01U K	25V
C1047	403 155 1807	CERAMIC	0.01U K	25V	C1103	403 157 7906	CERAMIC	0.047U Z	16V

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
C1104	403 157 8309	CERAMIC 0.1U Z 16V	C2002	403 114 4207	ELECT 47U M 4V
C1105	403 157 1904	CERAMIC 10P D 50V	OR	403 162 3900	ELECT 47U M 4V
C1106	403 155 1807	CERAMIC 0.01U K 25V	C2003	403 091 0407	TA-SOLID 1U M 16V
C1107	403 155 1807	CERAMIC 0.01U K 25V	C2005	403 114 5600	TA-SOLID 3.3U M 6.3V
C1110	403 155 1807	CERAMIC 0.01U K 25V	C2006	403 114 4108	ELECT 33U M 4V
C1111	403 114 5600	TA-SOLID 3.3U M 6.3V	OR	403 162 3801	ELECT 33U M 4V
C1112	403 155 1807	CERAMIC 0.01U K 25V	C2007	403 091 0407	TA-SOLID 1U M 16V
C1113	403 139 3605	ELECT 100U M 6.3V	C2008	403 067 9809	CERAMIC 0.1U K 25V
C1114	403 155 1807	CERAMIC 0.01U K 25V	C2010	403 139 3605	ELECT 100U M 6.3V
C1115	403 155 1807	CERAMIC 0.01U K 25V	C2011	403 067 9809	CERAMIC 0.1U K 25V
C1116	403 155 1807	CERAMIC 0.01U K 25V	C2012	403 113 3805	CERAMIC 1000P K 50V
C1117	403 157 2901	CERAMIC 47P J 50V	C2901	403 117 4501	CERAMIC 0.039U K 50V
C1118	403 153 9300	CERAMIC 82P J 50V	C2902	403 155 1807	CERAMIC 0.01U K 25V
C1119	403 157 8309	CERAMIC 0.1U Z 16V	C2903	403 092 6606	TA-SOLID 0.22U M 35V
C1120	403 155 2309	CERAMIC 4700P K 50V	C2904	403 139 3605	ELECT 100U M 6.3V
C1121	403 155 1807	CERAMIC 0.01U K 25V	C2905	403 114 4207	ELECT 47U M 4V
C1122	403 155 1807	CERAMIC 0.01U K 25V	OR	403 162 3900	ELECT 47U M 4V
C1123	403 155 1807	CERAMIC 0.01U K 25V	C2906	403 157 3106	CERAMIC 56P J 50V
C1124	403 155 1807	CERAMIC 0.01U K 25V	C2907	403 155 1500	CERAMIC 180P J 50V
C1125	403 155 1807	CERAMIC 0.01U K 25V	C2908	403 114 5600	TA-SOLID 3.3U M 6.3V
C1126	403 155 1807	CERAMIC 0.01U K 25V	C2909	403 026 7501	CERAMIC 470P J 50V
C1127	403 114 5600	TA-SOLID 3.3U M 6.3V	C2910	403 026 7501	CERAMIC 470P J 50V
C1128	403 155 1807	CERAMIC 0.01U K 25V	C2911	403 033 9000	CERAMIC 820P J 50V
C1129	403 155 1807	CERAMIC 0.01U K 25V	C2912	403 155 1500	CERAMIC 180P J 50V
C1130	403 155 1807	CERAMIC 0.01U K 25V			
C1131	403 155 1807	CERAMIC 0.01U K 25V	CN213	636 001 6910	SOCKET,MIC
C1132	403 157 8309	CERAMIC 0.1U Z 16V	CN851	636 001 9232	SOCKET,AV OUT
C1133	403 157 2901	CERAMIC 47P J 50V			
C1135	403 113 4109	CERAMIC 2200P K 50V	D1001	407 004 8009	DIODE DSB015
C1201	403 153 9300	CERAMIC 82P J 50V	D1002	407 004 8009	DIODE DSB015
C1203	403 139 7306	CERAMIC 18P J 50V	D1003	407 004 8009	DIODE DSB015
C1204	403 157 2505	CERAMIC 27P J 50V	D1004	407 004 1000	DIODE DCC010
C1205	403 153 9300	CERAMIC 82P J 50V	D1401	407 004 0706	DIODE DCB015
C1206	403 139 7504	CERAMIC 39P J 50V	D1402	407 004 8009	DIODE DS8015
C1207	403 145 9905	CERAMIC 22P J 50V	D1601	407 057 8902	ZENER DIODE RD8.2MB2
C1208	403 020 5503	CERAMIC 270P J 50V	D1602	407 057 8902	ZENER DIODE RD8.2MB2
C1401	403 134 7400	CERAMIC 1U Z 16V	D1603	407 057 8902	ZENER DIODE RD8.2MB2
C1402	403 134 7400	CERAMIC 1U Z 16V	D1604	407 057 8902	ZENER DIODE RD8.2MB2
C1403	403 134 7400	CERAMIC 1U Z 16V	D1607	407 054 5508	ZENER DIODE RD13MB1
C1404	403 134 7400	CERAMIC 1U Z 16V	D1608	407 114 4601	LED SLZ-881C-21
C1405	403 155 1807	CERAMIC 0.01U K 25V	D2001	407 004 1000	DIODE DCC010
C1406	403 134 7400	CERAMIC 1U Z 16V	D2002	407 004 0201	DIODE OCA015
C1407	403 114 5600	TA-SOLID 3.3U M 6.3V	D2901	407 057 8902	ZENER DIODE RD8.2MB2
C1408	403 134 7400	CERAMIC 1U Z 16V	D2902	407 057 8902	ZENER DIODE RD8.2MB2
C1410	403 155 1807	CERAMIC 0.01U K 25V			
C1411	403 153 9300	CERAMIC 82P J 50V	F1601 ▲	636 000 0353	CIRCUIT PROTECTOR
C1414	403 155 1807	CERAMIC 0.01U K 25V			
C1415	403 157 2505	CERAMIC 27P J 50V	IC101	409 175 9908	IC CXA1201Q-T1-Z
C1416	403 024 7107	CERAMIC 390P J 50V	IC102	409 051 2900	IC TC4053BF(TP1)
C1417	403 157 2505	CERAMIC 27P J 50V	IC103	409 169 5701	IC CXA1200BQ
C1418	403 069 1702	CERAMIC 1000P K 50V	IC141	409 143 8100	IC CXL1502H-T1
C1419	403 155 1807	CERAMIC 0.01U K 25V	IC142	409 176 0003	IC CXA1203N-T3
C1420	403 105 9105	CERAMIC 0.01U K 25V	IC201	409 156 4700	IC JU0353
C1421	403 157 3601	CERAMIC 100P J 50V			
C1422	403 157 2505	CERAMIC 27P J 50V	L1001	636 002 8852	RF CHOKE,100UH
C1423	403 145 9905	CERAMIC 22P J 50V	L1002	636 002 8852	RF CHOKE,100UH
C1424	403 157 3601	CERAMIC 100P J 50V	L1004	636 002 8852	RF CHOKE,100UH
C1425	403 023 4404	CERAMIC 330P J 50V	L1005	636 019 8746	COIL,INDUCTOR 47UH
C1426	403 033 9000	CERAMIC 820P J 50V	L1009	636 002 8852	RF CHOKE,100UH
C1427	403 158 7608	TA-SOLID 4.7U M 6.3V	L1011	636 003 2422	HF CHOKE,15UH
C1428	403 069 1702	CERAMIC 1000P K 50V	L1012	636 003 3184	HF CHOKE,330UH
C1429	403 011 4904	CERAMIC 120P J 50V	L1014	636 019 8746	COIL,INDUCTOR 47UH
C1430	403 155 1807	CERAMIC 0.01U K 25V	L1015	636 003 2514	HF CHOKE,82UH
C1431	403 158 7608	TA-SOLID 4.7U M 6.3V	L1016	636 003 2484	HF CHOKE,47UH
C1432	403 157 8309	CERAMIC 0.1U Z 16V	L1017	636 002 8852	RF CHOKE,100UH
C1430	403 026 7501	CERAMIC 470P J 50V	L1018	636 003 3207	HF CHOKE,470UH
C1601	403 155 1807	CERAMIC 0.01U K 25V	L1019	636 003 3184	HF CHOKE,330UH
C1602	403 114 4207	ELECT 47U M 4V	L1020	636 002 8852	RF CHOKE,100UH
C2001	403 162 3900	ELECT 47U M 4V	L1021	636 003 2392	HF CHOKE,8.2UH
OR	403 162 3900	ELECT 47U M 4V			

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
L1022	636 003 2231	HF CHOKE,120UH	Q1601	405 008 7707	TR 2SB815-B7
L1023	636 003 3184	HF CHOKE,330UH	Q1603	405 078 6709	TR 2SC4396-TL
L1024	636 002 8852	RF CHOKE,100UH	Q1604	405 078 4300	TR 2SC4398-TL
L1025	636 003 2361	HF CHOKE,4.7UH	Q2001	405 077 3402	TR 2SC4211-6-TL
L1026	636 003 3184	HF CHOKE,330UH	Q2002	405 077 3402	TR 2SC4211-6-TL
L1028	636 003 2255	HF CHOKE,180UH	Q2003	405 077 3402	TR 2SC4211-6-TL
L1029	636 003 2224	HF CHOKE,100UH	Q2004	405 077 2207	TR 2SA1622-6-TL
L1030	636 003 2101	HF CHOKE,10UH	Q2901	405 079 2809	TR IMX1-T109
L1031	636 003 2248	HF CHOKE,150UH	Q2902	405 077 3402	TR 2SC4211-6-TL
L1032	636 003 2224	HF CHOKE,100UH	R1002	401 105 0504	MT-GLAZE 1K JA 1/16W
L1033	636 002 8852	RF CHOKE,100UH	R1004	401 105 3307	MT-GLAZE 2.7K JA 1/16W
L1034	636 003 5379	CORE	R1005	401 105 4106	MT-GLAZE 3.3K JA 1/16W
L1035	636 003 5379	CORE	R1006	401 105 2102	MT-GLAZE 18K JA 1/16W
L1036	636 003 2484	HF CHOKE,47UH	R1007	401 105 5301	MT-GLAZE 4.7K JA 1/16W
L1040	636 003 5379	CORE	R1008	401 105 3406	MT-GLAZE 27K JA 1/16W
L1201	636 003 2460	HF CHOKE,33UH	R1009	401 105 2904	MT-GLAZE 22K JA 1/16W
L1401	636 002 8852	RF CHOKE,100UH	R1010	401 105 2904	MT-GLAZE 22K JA 1/16W
L1402	636 003 2491	HF CHOKE,56UH	R1011	401 105 3406	MT-GLAZE 27K JA 1/16W
L1403	636 003 2415	HF CHOKE,12UH	R1012	401 105 0702	MT-GLAZE 100K JA 1/16W
L1404	636 003 2491	HF CHOKE,56UH	R1013	401 105 1006	MT-GLAZE 1.2K JA 1/16W
Q1004	405 077 2207	TR 2SA1622-6-TL	R1014	401 105 7404	MT-GLAZE 8.2K JA 1/16W
Q1005	405 077 3402	TR 2SC4211-6-TL	R1015	401 105 0504	MT-GLAZE 1K JA 1/16W
Q1006	405 008 7707	TR 2SB815-B7	R1016	401 105 7305	MT-GLAZE 820 JA 1/16W
Q1007	405 078 6709	TR 2SC4396-TL	R1017	401 105 6407	MT-GLAZE 68 JA 1/16W
Q1008	405 008 7707	TR 2SB815-B7	R1018	401 105 7305	MT-GLAZE 820 JA 1/16W
Q1009	405 078 6709	TR 2SC4396-TL	R1019	401 105 6506	MT-GLAZE 680 JA 1/16W
Q1010	405 078 6709	TR 2SC4396-TL	R1020	401 105 5400	MT-GLAZE 47K JA 1/16W
Q1011	405 077 2207	TR 2SA1622-6-TL	R1021	401 105 5301	MT-GLAZE 4.7K JA 1/16W
Q1012	405 079 2809	TR IMX1-T109	R1023	401 105 2003	MT-GLAZE 1.8K JA 1/16W
Q1013	405 079 2809	TR IMX1-T109	R1024	401 105 2003	MT-GLAZE 1.8K JA 1/16W
Q1015	405 078 5801	TR 2SA1676-TL	R1025	401 105 5301	MT-GLAZE 4.7K JA 1/16W
Q1016	405 077 3402	TR 2SC4211-6-TL	R1026	401 105 6001	MT-GLAZE 5.6K JA 1/16W
Q1018	405 079 2809	TR IMX1-T109	R1027	401 105 5905	MT-GLAZE 560 JA 1/16W
Q1019	405 078 6709	TR 2SC4396-TL	R1028	401 105 3208	MT-GLAZE 270 JA 1/16W
Q1020	405 077 3402	TR 2SC4211-6-TL	R1029	401 113 5409	MT-GLAZE 510 JA 1/16W
Q1021	405 077 2207	TR 2SA1622-6-TL	R1030	401 105 5202	MT-GLAZE 470 JA 1/16W
Q1022	405 077 3402	TR 2SC4211-6-TL	R1031	401 105 7404	MT-GLAZE 8.2K JA 1/16W
Q1023	405 077 2207	TR 2SA1622-6-TL	R1032	401 105 6001	MT-GLAZE 5.6K JA 1/16W
Q1024	405 077 3402	TR 2SC4211-6-TL	R1033	401 105 0504	MT-GLAZE 1K JA 1/16W
Q1025	405 077 3402	TR 2SC4211-6-TL	R1034	401 105 7503	MT-GLAZE 82K JA 1/16W
Q1026	405 077 3402	TR 2SC4211-6-TL	R1035	401 105 8005	MT-GLAZE 1M JA 1/16W
Q1028	405 077 2207	TR 2SA1622-6-TL	R1037	401 105 8104	MT-GLAZE 56K JA 1/16W
Q1029	405 077 3402	TR 2SC4211-6-TL	R1038	401 105 3406	MT-GLAZE 27K JA 1/16W
Q1030	405 077 3402	TR 2SC4211-6-TL	R1039	401 105 4205	MT-GLAZE 33K JA 1/16W
Q1031	405 077 3402	TR 2SC4211-6-TL	R1040	401 105 2102	MT-GLAZE 18K JA 1/16W
Q1032	405 077 3402	TR 2SC4211-6-TL	R1041	401 105 6605	MT-GLAZE 6.8K JA 1/16W
Q1034	405 079 2809	TR IMX1-T109	R1043	401 105 4601	MT-GLAZE 3.9K JA 1/16W
Q1035	405 077 3402	TR 2SC4211-6-TL	R1044	401 105 2706	MT-GLAZE 220 JA 1/16W
Q1036	405 079 2809	TR IMX1-T109	R1046	401 105 4700	MT-GLAZE 39K JA 1/16W
Q1037	405 077 3402	TR 2SC4211-6-TL	R1047	401 105 1105	MT-GLAZE 12K JA 1/16W
Q1038	405 078 5801	TR 2SA1676-TL	R1048	401 105 5400	MT-GLAZE 47K JA 1/16W
Q1039	405 078 5801	TR 2SA1676-TL	R1049	401 105 5301	MT-GLAZE 4.7K JA 1/16W
Q1040	405 077 3402	TR 2SC4211-6-TL	R1050	401 105 6506	MT-GLAZE 680 JA 1/16W
Q1041	405 060 7509	TR FMG2-T99	R1051	401 105 1006	MT-GLAZE 1.2K JA 1/16W
Q1042	405 008 7707	TR 2SB815-B7	R1052	401 105 6506	MT-GLAZE 680 JA 1/16W
Q1043	405 078 6709	TR 2SC4396-TL	R1053	401 105 4106	MT-GLAZE 3.3K JA 1/16W
Q1044	405 077 3402	TR 2SC4211-6-TL	R1054	401 105 0504	MT-GLAZE 1K JA 1/16W
Q1045	405 077 3402	TR 2SC4211-6-TL	R1055	401 105 0504	MT-GLAZE 1K JA 1/16W
Q1201	405 078 5801	TR 2SA1676-TL	R1056	401 105 4106	MT-GLAZE 3.3K JA 1/16W
Q1404	405 077 3402	TR 2SC4211-6-TL	R1057	401 105 5301	MT-GLAZE 4.7K JA 1/16W
Q1405	405 077 3402	TR 2SC4211-6-TL	R1058	401 105 0900	MT-GLAZE 120 JA 1/16W
Q1406	405 077 3402	TR 2SC4211-6-TL	R1060	401 105 8104	MT-GLAZE 56K JA 1/16W
Q1407	405 077 2207	TR 2SA1622-6-TL	R1061	401 105 1600	MT-GLAZE 15K JA 1/16W
Q1408	405 078 5801	TR 2SA1676-TL	R1062	401 105 2904	MT-GLAZE 22K JA 1/16W
Q1409	405 078 6709	TR 2SC4396-TL	R1064	401 105 1600	MT-GLAZE 15K JA 1/16W
Q1410	405 077 3402	TR 2SC4211-6-TL	R1065	401 105 4106	MT-GLAZE 3.3K JA 1/16W
Q1411	405 078 6709	TR 2SC4396-TL	R1066	401 105 0603	MT-GLAZE 10K JA 1/16W
Q1412	405 078 6709	TR 2SC4396-TL	R1067	401 105 0504	MT-GLAZE 1K JA 1/16W

<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	
R1068	401 105 5202	MT-GLAZE	470 JA 1/16W	R1146	401 105 0603	MT-GLAZE
R1069	401 105 7404	MT-GLAZE	8.2K JA 1/16W	R1147	401 105 0603	10K JA 1/16W
R1070	401 105 1006	MT-GLAZE	1.2K JA 1/16W	R1148	401 105 0603	10K JA 1/16W
R1071	401 105 5202	MT-GLAZE	470 JA 1/16W	R1149	401 105 5400	MT-GLAZE
R1073	401 105 7305	MT-GLAZE	820 JA 1/16W	R1150	401 105 2805	47K JA 1/16W
R1074	401 105 7305	MT-GLAZE	820 JA 1/16W	R1151	401 105 0603	2.2K JA 1/16W
R1075	401 105 4106	MT-GLAZE	3.3K JA 1/16W	R1152	401 105 0603	10K JA 1/16W
R1076	401 105 4106	MT-GLAZE	3.3K JA 1/16W	R1153	401 105 0603	10K JA 1/16W
R1077	401 105 1501	MT-GLAZE	1.5K JA 1/16W	R1154	401 105 5400	MT-GLAZE
R1078	401 105 1501	MT-GLAZE	1.5K JA 1/16W	R1155	401 105 5301	47K JA 1/16W
R1079	401 105 2805	MT-GLAZE	2.2K JA 1/16W	R1156	401 105 0504	4.7K JA 1/16W
R1080	401 105 2706	MT-GLAZE	220 JA 1/16W	R1158	401 105 7909	0 ZA 1/16W
R1081	401 105 7305	MT-GLAZE	820 JA 1/16W	R1171	401 105 5301	0 ZA 1/16W
R1082	401 105 2904	MT-GLAZE	22K JA 1/16W	R1201	401 105 7909	4.7K JA 1/16W
R1083	401 105 4205	MT-GLAZE	33K JA 1/16W	R1202	401 105 1600	0 ZA 1/16W
R1084	401 105 3307	MT-GLAZE	2.7K JA 1/16W	R1203	401 105 5905	15K JA 1/16W
R1085	401 105 5905	MT-GLAZE	560 JA 1/16W	R1204	401 105 2003	560 JA 1/16W
R1086	401 105 4007	MT-GLAZE	330 JA 1/16W	R1205	401 105 1501	1.8K JA 1/16W
R1088	401 105 2805	MT-GLAZE	2.2K JA 1/16W	R1312	401 105 7909	1.5K JA 1/16W
R1090	401 105 0405	MT-GLAZE	100 JA 1/16W	R1401	401 105 0603	0 ZA 1/16W
R1091	401 105 5202	MT-GLAZE	470 JA 1/16W	R1405	401 105 0405	10K JA 1/16W
R1093	401 105 5202	MT-GLAZE	470 JA 1/16W	R1406	401 105 1006	100 JA 1/16W
R1096	401 105 5905	MT-GLAZE	560 JA 1/16W	R1407	401 105 8005	1.2K JA 1/16W
R1097	401 105 4601	MT-GLAZE	3.9K JA 1/16W	R1408	401 105 8005	1M JA 1/16W
R1098	401 105 5905	MT-GLAZE	560 JA 1/16W	R1409	401 105 7909	1M JA 1/16W
R1099	401 105 2904	MT-GLAZE	22K JA 1/16W	R1410	401 105 7909	0 ZA 1/16W
R1100	401 105 2904	MT-GLAZE	22K JA 1/16W	R1411	401 105 7909	0 ZA 1/16W
R1101	401 105 2805	MT-GLAZE	2.2K JA 1/16W	R1412	401 105 7909	0 ZA 1/16W
R1103	401 105 5905	MT-GLAZE	560 JA 1/16W	R1413	401 105 7909	0 ZA 1/16W
R1104	401 105 2003	MT-GLAZE	1.8K JA 1/16W	R1414	401 105 8005	0 ZA 1/16W
R1105	401 105 4007	MT-GLAZE	330 JA 1/16W	R1416	401 105 7909	1M JA 1/16W
R1106	401 105 2805	MT-GLAZE	2.2K JA 1/16W	R1418	401 105 4106	0 ZA 1/16W
R1107	401 105 7305	MT-GLAZE	820 JA 1/16W	R1423	401 105 2904	3.3K JA 1/16W
R1108	401 105 0603	MT-GLAZE	10K JA 1/16W	R1424	401 105 5400	22K JA 1/16W
R1109	401 105 1105	MT-GLAZE	12K JA 1/16W	R1425	401 105 4205	47K JA 1/16W
R1110	401 105 5202	MT-GLAZE	470 JA 1/16W	R1426	401 105 0702	33K JA 1/16W
R1111	401 105 6407	MT-GLAZE	68 JA 1/16W	R1427	401 105 3406	100K JA 1/16W
R1113	401 105 7404	MT-GLAZE	8.2K JA 1/16W	R1428	401 105 5400	27K JA 1/16W
R1115	401 105 2102	MT-GLAZE	18K JA 1/16W	R1429	401 105 1501	47K JA 1/16W
R1116	401 105 5905	MT-GLAZE	560 JA 1/16W	R1430	401 105 4106	1.5K JA 1/16W
R1117	401 105 2102	MT-GLAZE	18K JA 1/16W	R1431	401 105 0504	3.3K JA 1/16W
R1118	401 105 4502	MT-GLAZE	390 JA 1/16W	R1432	401 105 0504	1K JA 1/16W
R1119	401 105 0504	MT-GLAZE	1K JA 1/16W	R1433	401 105 0702	1K JA 1/16W
R1120	401 105 1501	MT-GLAZE	1.5K JA 1/16W	R1434	401 105 4106	100K JA 1/16W
R1121	401 105 4106	MT-GLAZE	3.3K JA 1/16W	R1435	401 105 3307	3.3K JA 1/16W
R1122	401 105 2805	MT-GLAZE	2.2K JA 1/16W	R1436	401 105 1501	2.7K JA 1/16W
R1123	401 105 2805	MT-GLAZE	2.2K JA 1/16W	R1437	401 105 0504	1.5K JA 1/16W
R1124	401 105 4106	MT-GLAZE	3.3K JA 1/16W	R1438	401 105 5400	1K JA 1/16W
R1125	401 105 3307	MT-GLAZE	2.7K JA 1/16W	R1439	401 105 0702	2.7K JA 1/16W
R1126	401 105 6506	MT-GLAZE	680 JA 1/16W	R1440	401 105 5400	47K JA 1/16W
R1127	401 105 5301	MT-GLAZE	4.7K JA 1/16W	R1441	401 105 2805	47K JA 1/16W
R1128	401 105 1006	MT-GLAZE	1.2K JA 1/16W	R1442	401 105 0603	2.2K JA 1/16W
R1129	401 105 4106	MT-GLAZE	3.3K JA 1/16W	R1443	401 105 1105	10K JA 1/16W
R1130	401 105 1501	MT-GLAZE	1.5K JA 1/16W	R1444	401 105 0603	12K JA 1/16W
R1131	401 105 1600	MT-GLAZE	15K JA 1/16W	R1445	401 105 5400	10K JA 1/16W
R1132	401 105 0504	MT-GLAZE	1K JA 1/16W	R1446	401 105 5400	47K JA 1/16W
R1133	401 105 1501	MT-GLAZE	1.5K JA 1/16W	R1447	401 105 6001	47K JA 1/16W
R1134	401 105 0603	MT-GLAZE	10K JA 1/16W	R1448	401 105 5400	5.6K JA 1/16W
R1135	401 105 0504	MT-GLAZE	1K JA 1/16W	R1449	401 105 0504	47K JA 1/16W
R1136	401 105 4106	MT-GLAZE	3.3K JA 1/16W	R1450	401 105 7404	1K JA 1/16W
R1137	401 105 5202	MT-GLAZE	3.3K JA 1/16W	R1451	401 105 5202	8.2K JA 1/16W
R1138	401 105 1501	MT-GLAZE	470 JA 1/16W	R1454	401 105 0603	470 JA 1/16W
R1139	401 105 1006	MT-GLAZE	1.5K JA 1/16W	R1455	401 105 1709	10K JA 1/16W
R1140	401 105 1006	MT-GLAZE	1.2K JA 1/16W	R1456	401 105 7909	150K JA 1/16W
R1141	401 105 1006	MT-GLAZE	1.2K JA 1/16W	R1457	401 105 7909	0 ZA 1/16W
R1142	401 105 4106	MT-GLAZE	3.3K JA 1/16W	R1458	401 105 6507	0 ZA 1/16W
R1143	401 105 0702	MT-GLAZE	100K JA 1/16W	R1601	401 105 5400	10M KA 1/10W
R1144	401 105 0504	MT-GLAZE	1K JA 1/16W	R1602	401 105 5301	47K JA 1/16W
R1145	401 105 2904	MT-GLAZE	22K JA 1/16W	R1604	401 105 0504	4.7K JA 1/16W
					1K JA 1/16W	

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
R1605	401 105 5202	MT-GLAZE 470 JA 1/16W	C3502	403 155 1807	CERAMIC 0.01U K 25V
R2001	401 105 0504	MT-GLAZE 1K JA 1/16W	C3503	403 134 7400	CERAMIC 1U Z 16V
R2002	401 105 0504	MT-GLAZE 1K JA 1/16W	C3504	403 155 2101	CERAMIC 1500P K 50V
R2003	401 105 4601	MT-GLAZE 3.9K JA 1/16W	C3505	403 134 7400	CERAMIC 1U Z 16V
R2004	401 105 7305	MT-GLAZE 820 JA 1/16W	C3506	403 163 9802	CERAMIC 0.047U Z 25V
R2005	401 105 5202	MT-GLAZE 470 JA 1/16W	C3507	403 152 9707	ELECT 22U M 6.3V
R2006	401 105 4205	MT-GLAZE 33K JA 1/16W	C3508	403 158 8308	TA-SOLID 10U M 6.3V
R2007	401 105 0504	MT-GLAZE 1K JA 1/16W	C3509	403 158 8308	TA-SOLID 10U M 6.3V
R2008	401 105 0603	MT-GLAZE 10K JA 1/16W	C3510	403 152 9707	ELECT 22U M 6.3V
R2009	401 105 7404	MT-GLAZE 8.2K JA 1/16W	C3511	403 134 7400	CERAMIC 1U Z 16V
R2010	401 105 6605	MT-GLAZE 6.8K JA 1/16W	C3512	403 139 7108	CERAMIC 12P J 50V
R2011	401 105 0603	MT-GLAZE 10K JA 1/16W	C3513	403 139 7108	CERAMIC 12P J 50V
R2012	401 105 7404	MT-GLAZE 8.2K JA 1/16W	C3514	403 068 0409	CERAMIC 0.1U Z 25V
R2013	401 105 0603	MT-GLAZE 10K JA 1/16W	C3515	403 157 3601	CERAMIC 100P J 50V
R2901	401 105 2805	MT-GLAZE 2.2K JA 1/16W	C3516	403 157 3601	CERAMIC 100P J 50V
R2902	401 105 6001	MT-GLAZE 5.6K JA 1/16W	C3517	403 155 1807	CERAMIC 0.01U K 25V
R2903	401 105 3406	MT-GLAZE 27K JA 1/16W	C3518	403 155 1807	CERAMIC 0.01U K 25V
R2904	401 105 4106	MT-GLAZE 3.3K JA 1/16W	C3519	403 069 5601	CERAMIC 0.01U K 50V
R2905	401 105 2706	MT-GLAZE 220 JA 1/16W	C3520	403 134 7400	CERAMIC 1U Z 16V
R2906	401 105 1105	MT-GLAZE 12K JA 1/16W	C3521	403 134 7400	CERAMIC 1U Z 16V
R2907	401 105 4007	MT-GLAZE 330 JA 1/16W	C3522	403 134 7400	CERAMIC 1U Z 16V
R2908	401 105 1105	MT-GLAZE 12K JA 1/16W	C3523	403 134 7400	CERAMIC 1U Z 16V
R2909	401 105 0603	MT-GLAZE 10K JA 1/16W	C3526	403 114 5600	TA-SOLID 3.3U M 6.3V
R2910	401 105 2904	MT-GLAZE 22K JA 1/16W	C3701	403 152 9707	ELECT 22U M 6.3V
R2911	401 105 2904	MT-GLAZE 22K JA 1/16W	C3702	403 155 1807	CERAMIC 0.01U K 25V
R2912	401 105 3307	MT-GLAZE 2.7K JA 1/16W	C3703	403 152 9707	ELECT 22U M 6.3V
R2913	401 105 0504	MT-GLAZE 1K JA 1/16W	C3704	403 155 1807	CERAMIC 0.01U K 25V
T1401	636 019 4953	FILTER	C3705	403 152 9806	ELECT 10U M 16V
T2001	636 022 3806	FILTER,1.5MHZ	C3706	403 152 9806	ELECT 10U M 16V
VR101	636 019 8074	SVR 47K OHM	C3707	403 100 9704	CERAMIC 0.1U M 25V
VR102	636 019 7909	SVR 10K OHM	C3709	403 155 1609	CERAMIC 33P J 50V
VR103	636 019 8074	SVR 47K OHM	C3710	403 155 1609	CERAMIC 33P J 50V
VR104	636 019 8067	SVR 4.7K OHM	C3711	403 157 6602	CERAMIC 470P K 50V
VR105	636 019 7985	SVR 2.2K OHM	C3712	403 157 3106	CERAMIC 56P J 50V
VR106	636 019 7985	SVR 2.2K OHM	C3713	403 113 3805	CERAMIC 1000P K 50V
VR107	636 019 8050	SVR 470 OHM	C3714	403 145 9905	CERAMIC 22P J 50V
VR108	636 019 7909	SVR 10K OHM	C3715	403 155 2101	CERAMIC 1500P K 50V
VR109	636 019 7909	SVR 10K OHM	C3716	403 068 2007	CERAMIC 0.022U K 25V
VR110	636 019 8067	SVR 4.7K OHM	C3717	403 068 2007	CERAMIC 0.022U K 25V
VR111	636 019 7985	SVR 2.2K OHM	C3718	403 068 0409	CERAMIC 0.1U Z 25V
X1401	636 019 4977	CRYSTAL,4.433619MHZ	C3719	403 073 1200	CERAMIC 0.033U K 50V
X1402	636 025 5265	FILTER,5.17MHZ	C3720	403 075 0706	CERAMIC 6800P K 50V
COMPL.SV-1			C3721	403 068 2007	CERAMIC 0.022U K 25V
COMPL.NO.	636 025 1298		C3722	403 068 5107	CERAMIC 0.047U Z 25V
	636 022 4803	SHIELD,SIDE A	C3723	403 155 1807	CERAMIC 0.01U K 25V
	636 022 4810	SHIELD,SIDE B	C3724	403 134 7400	CERAMIC 1U Z 16V
	636 022 4902	INSULATOR	C3725	403 113 3805	CERAMIC 1000P K 50V
			C3726	403 113 3805	CERAMIC 1000P K 50V
C3202	403 152 9004	ELECT 47U M 6.3V	C3801	403 153 1205	ELECT 47U M 16V
C3203	403 068 0409	CERAMIC 0.1U Z 25V	C3802	403 068 0409	CERAMIC 0.1U Z 25V
C3204	403 157 2604	CERAMIC 30P J 50V	C3803	403 165 4706	ELECT 100U M 10V
C3206	403 134 7400	CERAMIC 1U Z 16V	C3808	403 068 0409	CERAMIC 0.1U Z 25V
C3207	403 068 2007	CERAMIC 0.022U K 25V	C3809	403 091 4801	TA-SOLID 3.3U M 16V
C3208	403 155 2200	CERAMIC 3300P K 50V	C3810	403 100 9704	CERAMIC 0.1U M 25V
C3209	403 028 9800	CERAMIC 560P J 50V	C3811	403 100 9704	CERAMIC 0.1U M 25V
C3210	403 157 3601	CERAMIC 100P J 50V	C3812	403 100 9704	CERAMIC 0.1U M 25V
C3211	403 068 0409	CERAMIC 0.1U Z 25V	C3813	403 100 9704	CERAMIC 0.1U M 25V
C3212	403 155 1807	CERAMIC 0.01U K 25V	C3814	403 100 9704	CERAMIC 0.1U M 25V
C3213	403 155 1807	CERAMIC 0.01U K 25V	C3815	403 100 9704	CERAMIC 0.1U M 25V
C3214	403 134 7400	CERAMIC 1U Z 16V	C3816	403 158 7608	TA-SOLID 4.7U M 6.3V
C3215	403 149 7303	CERAMIC 0.47U Z 16V	C3817	403 155 1807	CERAMIC 0.01U K 25V
C3217	403 068 0409	CERAMIC 0.1U Z 25V	C3818	403 134 7400	CERAMIC 1U Z 16V
C3218	403 113 3805	CERAMIC 1000P K 50V	C3819	403 134 7400	CERAMIC 1U Z 16V
C3501	403 158 7608	TA-SOLID 4.7U M 10V	C3820	403 114 5600	TA-SOLID 3.3U M 6.3V
			C3822	403 069 5601	CERAMIC 0.01U K 50V

LOCATION	PARTS NO.	DESCRIPTION			LOCATION	PARTS NO.	DESCRIPTION	
C3823	403 091 4801	TA-SOLID	3.3U M	.16V	Q3802	405 006 8904	TR 2SB1121-T-TD	
C3824	403 134 7400	CERAMIC	1U Z	.16V	Q3803	405 078 4300	TR 2SC4398-TL	
C3825	403 134 7400	CERAMIC	1U Z	.16V	Q3805	405 078 4300	TR 2SC4398-TL	
C3827	403 157 4202	CERAMIC	220P J	.50V	Q3806	405 078 4300	TR 2SC4398-TL	
CT321	636 000 4795	TRIMMER			R3201	401 105 5202	MT-GLAZE	470 JA 1/16W
D3201	407 106 1601	DEODE DCG015-TL			R3202	401 105 0603	MT-GLAZE	10K JA 1/16W
D3202	407 106 1601	DEODE DCG015-TL			R3203	401 105 3406	MT-GLAZE	27K JA 1/16W
D3203	407 106 1601	DEODE DCG015-TL			R3204	401 105 7404	MT-GLAZE	8.2K JA 1/16W
D3204	407 106 1601	DEODE DCG015-TL			R3205	401 105 3307	MT-GLAZE	2.7K JA 1/16W
D3205	407 106 1601	DEODE DCG015-TL			R3206	401 105 3307	MT-GLAZE	2.7K JA 1/16W
D3801	407 066 8702	DIODE SB10-05PCP-TD			R3207	401 105 0603	MT-GLAZE	10K JA 1/16W
D3802	407 066 8702	DIODE SB10-05PCP-TD			R3208	401 105 0603	MT-GLAZE	10K JA 1/16W
IC321	409 170 0603	IC UPD6142G-101-T1			R3209	401 105 0603	MT-GLAZE	10K JA 1/16W
IC322	409 170 0900	IC LVA519F-T1			R3210	401 105 0603	MT-GLAZE	10K JA 1/16W
IC323	409 170 0702	IC RTC4503(3.0V)			R3211	401 105 3307	MT-GLAZE	2.7K JA 1/16W
IC351	410 071 0203	IC CXP80116-126Q			R3212	401 105 8005	MT-GLAZE	1M JA 1/16W
IC352	409 085 0705	IC LB1631H-T1			R3213	401 105 7909	MT-GLAZE	0 ZA 1/16W
IC353	409 018 3704	IC LA6358H-T1			R3214	401 105 7909	MT-GLAZE	0 ZA 1/16W
IC354	409 111 7401	IC LVC550C			R3217	401 105 0405	MT-GLAZE	100 JA 1/16W
IC355	409 170 0801	IC PST529DMT-L			R3218	401 105 5400	MT-GLAZE	47K JA 1/16W
IC371	409 150 0500	IC CXA1204Q			R3220	401 105 0603	MT-GLAZE	10K JA 1/16W
IC381	409 139 5304	IC LB1617H-T1			R3221	401 105 0405	MT-GLAZE	100 JA 1/16W
IC382	409 139 5304	IC LB1617H-T1			R3501	401 105 0504	MT-GLAZE	1K JA 1/16W
IC383	409 004 8607	IC CX20115-T1			R3502	401 105 0504	MT-GLAZE	1K JA 1/16W
IC384	409 020 6809	IC LC4001BM-T1			R3503	401 037 1907	MT-GLAZE	680 JA 1/8W
L3201	636 003 2224	HF CHOKE.100UH			R3504	401 037 1907	MT-GLAZE	680 JA 1/8W
OR	636 020 3976	COIL.INDUCTOR 100UH			R3505	401 105 0702	MT-GLAZE	100K JA 1/16W
L3202	636 003 1241	HF CHOKE.33UH			R3506	401 105 0702	MT-GLAZE	100K JA 1/16W
L3501	636 002 8524	LF CHOKE.100UH			R3507	401 105 0702	MT-GLAZE	100K JA 1/16W
L3502	636 002 9767	HF CHOKE.100UH			R3508	401 105 0702	MT-GLAZE	100K JA 1/16W
L3701	636 002 8876	RF CHOKE.330UH			R3509	401 105 0405	MT-GLAZE	100 JA 1/16W
L3702	636 003 2224	HF CHOKE.100UH			R3510	401 105 8104	MT-GLAZE	56K JA 1/16W
OR	636 020 3976	COIL.INDUCTOR 100UH			R3511	401 105 8104	MT-GLAZE	56K JA 1/16W
L3703	636 003 2224	HF CHOKE.100UH			R3516	401 105 1709	MT-GLAZE	150K JA 1/16W
OR	636 020 3976	COIL.INDUCTOR 100UH			R3517	401 105 0603	MT-GLAZE	10K JA 1/16W
L3801	636 023 4635	COIL.INDUCTOR 220UH			R3518	401 105 5400	MT-GLAZE	47K JA 1/16W
L3802	636 023 6226	COIL.INDUCTOR 700UH			R3519	401 105 8104	MT-GLAZE	56K JA 1/16W
L3803	636 023 4659	COIL.INDUCTOR 2MH			R3520	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3201	405 077 3105	TR 2SC4211-5-TL			R3521	401 105 1709	MT-GLAZE	150K JA 1/16W
Q3202	405 078 6709	TR 2SC4396-TL			R3522	401 105 0603	MT-GLAZE	10K JA 1/16W
Q3203	405 077 3105	TR 2SC4211-5-TL			R3523	401 105 5400	MT-GLAZE	47K JA 1/16W
Q3204	405 078 6709	TR 2SC4396-TL			R3524	401 105 8104	MT-GLAZE	56K JA 1/16W
Q3205	405 078 6709	TR 2SC4396-TL			R3525	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3207	405 078 5801	TR 2SA1676-TL			R3526	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3208	405 078 5801	TR 2SA1676-TL			R3527	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3501	405 047 9304	TR 2SB1205-S-TL			R3528	401 105 0603	MT-GLAZE	10K JA 1/16W
Q3502	405 077 3105	TR 2SC4211-5-TL			R3529	401 105 0603	MT-GLAZE	10K JA 1/16W
Q3503	405 078 5801	TR 2SA1676-TL			R3530	401 105 4106	MT-GLAZE	3.3K JA 1/16W
Q3504	405 078 6709	TR 2SC4396-TL			R3531	401 105 4106	MT-GLAZE	3.3K JA 1/16W
Q3505	405 078 5801	TR 2SA1676-TL			R3532	401 105 0603	MT-GLAZE	10K JA 1/16W
Q3506	405 078 6709	TR 2SC4396-TL			R3533	401 105 0603	MT-GLAZE	10K JA 1/16W
Q3509	405 035 1105	TR FMW1-T99			R3534	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3510	405 035 1105	TR FMW1-T99			R3535	401 105 0603	MT-GLAZE	10K JA 1/16W
Q3511	405 078 6402	TR 2SA1678-TL			R3536	401 105 5905	MT-GLAZE	560 JA 1/16W
Q3512	405 078 4300	TR 2SC4398-TL			R3537	401 036 1403	MT-GLAZE	220 JA 1/8W
Q3513	405 078 6709	TR 2SC4396-TL			R3539	401 105 0603	MT-GLAZE	10K JA 1/16W
Q3514	405 077 3105	TR 2SC4211-5-TL			R3540	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3515	405 077 3105	TR 2SC4211-5-TL			R3541	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3516	405 035 1105	TR FMW1-T99			R3542	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3517	405 078 6709	TR 2SC4396-TL			R3543	401 105 2201	MT-GLAZE	180K JA 1/16W
Q3518	405 078 6402	TR 2SA1678-TL			R3544	401 105 0702	MT-GLAZE	100K JA 1/16W
Q3701	405 077 3105	TR 2SC4211-5-TL			R3545	401 105 0603	MT-GLAZE	10K JA 1/16W
Q3702	405 077 2207	TR 2SA1622-6-TL			R3546	401 105 3505	MT-GLAZE	270K JA 1/16W
Q3801	405 006 8904	TR 2SB1121-T-TD			R3547	401 105 5400	MT-GLAZE	47K JA 1/16W
					R3548	401 105 0603	MT-GLAZE	10K JA 1/16W
					R3551	401 105 0702	MT-GLAZE	100K JA 1/16W
					R3552	401 105 0702	MT-GLAZE	100K JA 1/16W
					R3553	401 105 0702	MT-GLAZE	100K JA 1/16W

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
R3554	401 105 0603	MT-GLAZE 10K JA 1/16W	R3815	401 105 0603	MT-GLAZE 10K JA 1/16W
R3555	401 105 0603	MT-GLAZE 10K JA 1/16W	R3816	401 105 7503	MT-GLAZE 82K JA 1/16W
R3557	401 105 0702	MT-GLAZE 100K JA 1/16W	R3817	401 105 7909	MT-GLAZE 0 ZA 1/16W
R3558	401 105 0702	MT-GLAZE 100K JA 1/16W	R3818	401 105 0702	MT-GLAZE 100K JA 1/16W
R3559	401 105 0702	MT-GLAZE 100K JA 1/16W	R3821	401 105 0603	MT-GLAZE 10K JA 1/16W
R3560	401 105 0702	MT-GLAZE 100K JA 1/16W	R3822	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R3561	401 105 0702	MT-GLAZE 100K JA 1/16W	R3823	401 105 0702	MT-GLAZE 100K JA 1/16W
R3562	401 105 3000	MT-GLAZE 220K JA 1/16W	R3824	401 105 7909	MT-GLAZE 0 ZA 1/16W
R3563	401 105 3000	MT-GLAZE 220K JA 1/16W	R3825	401 105 7909	MT-GLAZE 0 ZA 1/16W
R3564	401 105 0702	MT-GLAZE 100K JA 1/16W	R3826	401 037 3703	MT-GLAZE 820 JA 1/8W
R3565	401 105 0702	MT-GLAZE 100K JA 1/16W	R3827	401 037 1907	MT-GLAZE 680 JA 1/8W
R3566	401 105 0702	MT-GLAZE 100K JA 1/16W	R3828	401 038 3702	MT-GLAZE 33K JA 1/10W
R3567	401 105 1709	MT-GLAZE 150K JA 1/16W	R3829	401 105 7909	MT-GLAZE 0 ZA 1/16W
R3568	401 105 2904	MT-GLAZE 22K JA 1/16W	VR321	636 019 7909	SVR 10K OHM
R3569	401 105 2904	MT-GLAZE 22K JA 1/16W	VR351	636 019 8074	SVR 47K OHM
R3570	401 105 3000	MT-GLAZE 220K JA 1/16W	VR352	636 019 7916	SVR 100K OHM
R3571	401 105 3505	MT-GLAZE 270K JA 1/16W	VR353	636 019 7916	SVR 100K OHM
R3572	401 105 3000	MT-GLAZE 220K JA 1/16W	X3501	636 023 4680	OSC,CRYSTAL 8MHZ
R3573	401 105 2904	MT-GLAZE 22K JA 1/16W	X3701	636 000 4917	CRYSTAL,5.86MHZ
R3575	401 105 0603	MT-GLAZE 10K JA 1/16W	COMPL,SY-1		
R3580	401 105 0702	MT-GLAZE 100K JA 1/16W	COMPL.NO.	636 023 5960	
R3581	401 105 7909	MT-GLAZE 0 ZA 1/16W	C3001	403 152 9707	ELECT 22U M 6.3V
R3582	401 105 5301	MT-GLAZE 4.7K JA 1/16W	OR	403 162 4006	ELECT 22U M 6.3V
R3583	401 105 0603	MT-GLAZE 10K JA 1/16W	D3001	407 106 1601	DIODE DCG015-TL
R3584	401 105 5400	MT-GLAZE 47K JA 1/16W	D3002	407 106 1601	DIODE DCG015-TL
R3701	401 105 0603	MT-GLAZE 10K JA 1/16W	D3003	407 106 1601	DIODE DCG015-TL
R3702	401 105 5400	MT-GLAZE 47K JA 1/16W	D3004	407 106 1601	DIODE DCG015-TL
R3703	401 105 5400	MT-GLAZE 47K JA 1/16W	D3005	407 106 1601	DIODE DCG015-TL
R3705	401 105 0603	MT-GLAZE 10K JA 1/16W	D3006	407 106 1601	DIODE DCG015-TL
R3706	401 105 0504	MT-GLAZE 1K JA 1/16W	D3007	407 106 1601	DIODE DCG015-TL
R3707	401 105 1006	MT-GLAZE 1.2K JA 1/16W	D3008	407 106 1601	DIODE DCG015-TL
R3708	401 105 8005	MT-GLAZE 1M JA 1/16W	D3009	407 114 4601	LED SLZ-881C-21
R3709	401 105 0603	MT-GLAZE 10K JA 1/16W	IC301	410 057 9107	IC UPD75546-574
R3710	401 105 0603	MT-GLAZE 10K JA 1/16W	Q3001	405 077 2207	TR 2SA1622-6-TL
R3711	401 105 0603	MT-GLAZE 10K JA 1/16W	Q3002	405 078 4300	TR 2SC4398-TL
R3712	401 105 0603	MT-GLAZE 10K JA 1/16W	Q3003	405 077 2207	TR 2SA1622-6-TL
R3713	401 105 0603	MT-GLAZE 10K JA 1/16W	Q3004	405 077 2207	TR 2SA1622-6-TL
R3714	401 105 0603	MT-GLAZE 10K JA 1/16W	Q3005	405 077 2207	TR 2SA1622-6-TL
R3715	401 105 6704	MT-GLAZE 680K JA 1/16W	Q3006	405 077 2207	TR 2SA1622-6-TL
R3716	401 105 1402	MT-GLAZE 150 JA 1/16W	Q3007	405 077 2207	TR 2SA1622-6-TL
R3717	401 105 4205	MT-GLAZE 33K JA 1/16W	R3001	401 105 4700	MT-GLAZE 39K JA 1/16W
R3718	401 105 7404	MT-GLAZE 8.2K JA 1/16W	R3002	401 105 0603	MT-GLAZE 10K JA 1/16W
R3719	401 105 6605	MT-GLAZE 6.8K JA 1/16W	R3003	401 105 0405	MT-GLAZE 100 JA 1/16W
R3720	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R3004	401 105 0603	MT-GLAZE 10K JA 1/16W
R3721	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R3006	401 105 0702	MT-GLAZE 100K JA 1/16W
R3722	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R3007	401 105 0603	MT-GLAZE 10K JA 1/16W
R3723	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R3008	401 105 1709	MT-GLAZE 150K JA 1/16W
R3724	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R3010	401 105 0702	MT-GLAZE 100K JA 1/16W
R3725	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R3011	401 105 5202	MT-GLAZE 470 JA 1/16W
R3726	401 105 0603	MT-GLAZE 10K JA 1/16W	R3012	401 105 5400	MT-GLAZE 47K JA 1/16W
R3729	401 105 5202	MT-GLAZE 470 JA 1/16W	R3013	401 105 5400	MT-GLAZE 47K JA 1/16W
R3730	401 105 5202	MT-GLAZE 470 JA 1/16W	R3014	401 105 5400	MT-GLAZE 47K JA 1/16W
R3731	401 105 5509	MT-GLAZE 470K JA 1/16W	R3015	401 105 5400	MT-GLAZE 47K JA 1/16W
R3732	401 105 1907	MT-GLAZE 180 JA 1/16W	R3016	401 105 5400	MT-GLAZE 47K JA 1/16W
R3733	401 105 7909	MT-GLAZE 0 ZA 1/16W	R3017	401 105 5400	MT-GLAZE 47K JA 1/16W
R3801	401 105 5202	MT-GLAZE 470 JA 1/16W	R3018	401 105 5400	MT-GLAZE 47K JA 1/16W
R3802	401 037 1907	MT-GLAZE 680 JA 1/8W	R3019	401 105 5400	MT-GLAZE 47K JA 1/16W
R3803	401 105 5202	MT-GLAZE 470 JA 1/16W	R3020	401 105 0702	MT-GLAZE 100K JA 1/16W
R3804	401 037 3703	MT-GLAZE 820 JA 1/8W	R3021	401 105 0702	MT-GLAZE 100K JA 1/16W
R3805	401 113 3009	MT-GLAZE 3.3 KA 1/16W	R3022	401 105 0702	MT-GLAZE 100K JA 1/16W
R3806	401 113 3009	MT-GLAZE 3.3 KA 1/16W	R3023	401 105 0702	MT-GLAZE 100K JA 1/16W
R3807	401 113 3009	MT-GLAZE 3.3 KA 1/16W			
R3808	401 105 0603	MT-GLAZE 10K JA 1/16W			
R3809	401 105 4205	MT-GLAZE 33K JA 1/16W			
R3810	401 105 0603	MT-GLAZE 10K JA 1/16W			
R3811	401 105 7909	MT-GLAZE 0 ZA 1/16W			
R3812	401 113 3009	MT-GLAZE 3.3 KA 1/16W			
R3813	401 113 3009	MT-GLAZE 3.3 KA 1/16W			
R3814	401 113 3009	MT-GLAZE 3.3 KA 1/16W			

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
R3024	401 105 5202	MT-GLAZE 470 JA 1/16W	C1942	403 155 1807	CERAMIC 0.01U K 25V
R3025	401 105 5400	MT-GLAZE 47K JA 1/16W	C1943	403 157 7906	CERAMIC 0.047U Z 16V
R3026	401 105 0702	MT-GLAZE 100K JA 1/16W	C1944	403 155 1807	CERAMIC 0.01U K 25V
S3001	636 000 8311	SLIDE SWITCH	C1945	403 157 8309	CERAMIC 0.1U Z 16V
S3002	636 000 8311	SLIDE SWITCH	C1946	403 158 7608	TA-SOLID 4.7U M 6.3V
S3003	636 000 8571	PUSH SWITCH	C1947	403 157 8309	CERAMIC 0.1U Z 16V
S3004	636 000 8571	PUSH SWITCH	C1948	403 158 7608	TA-SOLID 4.7U M 6.3V
S3005	636 000 8571	PUSH SWITCH	C1949	403 158 7608	TA-SOLID 4.7U M 6.3V
S3006	636 000 8571	PUSH SWITCH	C1950	403 157 8309	CERAMIC 0.1U Z 16V
S3007	636 000 8571	PUSH SWITCH	C1951	403 157 8309	CERAMIC 0.1U Z 16V
S3008	636 000 8571	PUSH SWITCH	C1952	403 158 7608	TA-SOLID 4.7U M 6.3V
S3009	636 000 8571	PUSH SWITCH	C1953	403 158 7608	TA-SOLID 4.7U M 6.3V
S3010	636 000 8571	PUSH SWITCH	C1954	403 157 8309	CERAMIC 0.1U Z 16V
S3011	636 000 8571	PUSH SWITCH	C1955	403 157 8309	CERAMIC 0.1U Z 16V
C1956	403 157 8309	CERAMIC 0.1U Z 16V	C1956	403 157 8309	CERAMIC 0.1U Z 16V
C1957	403 157 8309	CERAMIC 0.1U Z 16V	C1957	403 157 8309	CERAMIC 0.1U Z 16V
C1958	403 157 8309	CERAMIC 0.1U Z 16V	C1958	403 157 8309	CERAMIC 0.1U Z 16V
C1959	403 155 2309	CERAMIC 4700P K 50V	C1959	403 155 2309	CERAMIC 4700P K 50V
C5001	403 042 3006	ELECT 100U M 16V			
636 022 4780	SHIELD,SIDE A		F5001	636 000 0391	CIRCUIT PROTECTOR,1.0A
636 022 4797	SHIELD,SIDE B		F5002	423 000 0700	FUSE,3.15A
636 025 0277	INSULATOR				
636 025 0284	INSULATOR				
C1501	403 157 3601	CERAMIC 100P J 50V	IC191	409 170 9200	IC CXA1202R
C1502	403 155 1302	CERAMIC 150P J 50V	OR	409 170 9200	IC CXA1202R-T3
C1503	403 153 9300	CERAMIC 82P J 50V	IC192	409 170 9200	IC CXA1202R
C1504	403 157 3601	CERAMIC 100P J 50V	OR	409 170 9200	IC CXA1202R-T3
C1505	403 157 8309	CERAMIC 0.1U Z 16V	IC193	409 133 1906	IC UPD4071BG-T1
C1901	403 157 8309	CERAMIC 0.1U Z 16V	L1501	636 003 2101	HF CHOKE,10UH
C1902	403 155 1807	CERAMIC 0.01U K 25V	L1502	636 002 8869	RF CHOKE,220UH
C1903	403 155 1807	CERAMIC 0.01U K 25V	L1901	636 019 8555	COIL,INDUCTOR 10UH
C1904	403 157 8309	CERAMIC 0.1U Z 16V	L1902	636 019 8555	COIL,INDUCTOR 10UH
C1905	403 157 8309	CERAMIC 0.1U Z 16V	L1903	636 019 8555	COIL,INDUCTOR 10UH
C1906	403 157 8309	CERAMIC 0.1U Z 16V	L1904	636 019 8555	COIL,INDUCTOR 10UH
C1907	403 157 8309	CERAMIC 0.1U Z 16V	L1905	636 019 8555	COIL,INDUCTOR 10UH
C1908	403 157 8309	CERAMIC 0.1U Z 16V	L1906	636 019 8555	COIL,INDUCTOR 10UH
C1909	403 157 8309	CERAMIC 0.1U Z 16V	L1907	636 019 8555	COIL,INDUCTOR 10UH
C1910	403 155 1807	CERAMIC 0.01U K 25V	L1908	636 019 8555	COIL,INDUCTOR 10UH
C1911	403 155 1807	CERAMIC 0.01U K 25V	L5001	636 003 3924	HF CHOKE
C1912	403 157 8309	CERAMIC 0.1U Z 16V	L5002	636 003 3924	HF CHOKE
C1913	403 155 1807	CERAMIC 0.01U K 25V	L5003	636 003 3924	HF CHOKE
C1914	403 155 1807	CERAMIC 0.01U K 25V			
C1915	403 157 7906	CERAMIC 0.047U Z 16V	Q1501	405 077 2207	TR ZSA1622-6-TL
C1916	403 155 1807	CERAMIC 0.01U K 25V	Q1502	405 077 2207	TR ZSA1622-6-TL
C1917	403 157 8309	CERAMIC 0.1U Z 16V	Q1901	405 061 4101	TR ZSA1434
C1918	403 158 7608	TA-SOLID 4.7U M 6.3V	Q1902	405 061 4101	TR ZSA1434
C1919	403 157 8309	CERAMIC 0.1U Z 16V	Q1903	405 061 4101	TR ZSA1434
C1920	403 158 7608	TA-SOLID 4.7U M 6.3V	Q1904	405 061 4101	TR ZSA1434
C1921	403 157 8309	CERAMIC 0.1U Z 16V	Q1905	405 078 6709	TR ZSC4396-TL
C1922	403 158 7608	TA-SOLID 4.7U M 6.3V	Q1906	405 078 6709	TR ZSC4396-TL
C1923	403 157 8309	CERAMIC 0.1U Z 16V	Q1907	405 078 6709	TR ZSC4396-TL
C1924	403 158 7608	TA-SOLID 4.7U M 6.3V	Q1908	405 078 6709	TR ZSC4396-TL
C1925	403 158 7608	TA-SOLID 4.7U M 6.3V	Q1909	405 008 7707	TR 2SB815-B7
C1926	403 157 8309	CERAMIC 0.1U Z 16V	Q1910	405 078 6709	TR ZSC4396-TL
C1927	403 155 1807	CERAMIC 0.01U K 25V	Q1911	405 078 6709	TR ZSC4396-TL
C1928	403 155 1807	CERAMIC 0.01U K 25V			
C1929	403 157 8309	CERAMIC 0.1U Z 16V	R1501	401 105 2607	MT-GLAZE 22 JA 1/16W
C1930	403 157 8309	CERAMIC 0.1U Z 16V	R1502	401 105 3208	MT-GLAZE 270 JA 1/16W
C1931	403 157 8309	CERAMIC 0.1U Z 16V	R1503	401 105 2706	MT-GLAZE 220 JA 1/16W
C1932	403 157 8309	CERAMIC 0.1U Z 16V	R1504	401 105 2904	MT-GLAZE 22K JA 1/16W
C1933	403 157 8309	CERAMIC 0.1U Z 16V	R1505	401 105 4205	MT-GLAZE 33K JA 1/16W
C1934	403 157 8309	CERAMIC 0.1U Z 16V	R1506	401 105 5301	MT-GLAZE 4.7K JA 1/16W
C1935	403 155 1807	CERAMIC 0.01U K 25V	R1901	401 105 4205	MT-GLAZE 33K JA 1/16W
C1936	403 155 1807	CERAMIC 0.01U K 25V	R1902	401 105 5301	MT-GLAZE 4.7K JA 1/16W
C1937	403 157 8309	CERAMIC 0.1U Z 16V	R1903	401 105 2904	MT-GLAZE 22K JA 1/16W
C1938	403 155 1807	CERAMIC 0.01U K 25V	R1904	401 105 1501	MT-GLAZE 1.5K JA 1/16W
C1940	403 157 4202	CERAMIC 220P J 50V	R1905	401 105 5400	MT-GLAZE 47K JA 1/16W
C1941	403 155 1807	CERAMIC 0.01U K 25V	R1906	401 105 4700	MT-GLAZE 39K JA 1/16W

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION	
R1907	401 105 3406	MT-GLAZE	27K JA 1/16W	C9122	403 145 9905	CERAMIC .22P J 50V
R1908	401 105 5400	MT-GLAZE	47K JA 1/16W	C9123	403 155 1807	CERAMIC 0.01U K 25V
R1909	401 105 1501	MT-GLAZE	1.5K JA 1/16W	C9124	403 166 2107	TA-SOLID 47U M 4V
R1910	401 105 2904	MT-GLAZE	22K JA 1/16W	C9125	403 153 0901	ELECT 100U M 6.3V
R1911	401 105 4205	MT-GLAZE	33K JA 1/16W	C9126	403 153 0901	ELECT 100U M 6.3V
R1912	401 105 5301	MT-GLAZE	4.7K JA 1/16W	C9127	403 153 0901	ELECT 100U M 6.3V
R1913	401 105 6100	MT-GLAZE	560K JA 1/16W	C9129	403 164 0204	CERAMIC 0.1U Z 25V
R1914	401 105 4205	MT-GLAZE	33K JA 1/16W	C9130	403 157 1904	CERAMIC 10P D 50V
R1915	401 105 5301	MT-GLAZE	4.7K JA 1/16W	C9131	403 164 0204	CERAMIC 0.1U Z 25V
R1916	401 105 2904	MT-GLAZE	22K JA 1/16W	C9132	403 092 6606	TA-SOLID 0.22U M 35V
R1917	401 105 1501	MT-GLAZE	1.5K JA 1/16W	C9133	403 038 9708	ELECT 330U M 6.3V
R1918	401 105 5400	MT-GLAZE	47K JA 1/16W	C9134	403 114 5600	TA-SOLID 3.3U M 6.3V
R1919	401 105 4700	MT-GLAZE	39K JA 1/16W	C9135	403 089 6206	TA-SOLID 4.7U M 4V
R1920	401 105 3406	MT-GLAZE	27K JA 1/16W	C9136	403 152 9608	ELECT 47U M 4V
R1921	401 105 5400	MT-GLAZE	47K JA 1/16W	C9137	403 164 0204	CERAMIC 0.1U Z 25V
R1922	401 105 1501	MT-GLAZE	1.5K JA 1/16W	C9138	403 164 0204	CERAMIC 0.1U Z 25V
R1923	401 105 2904	MT-GLAZE	22K JA 1/16W	C9139	403 164 0204	CERAMIC 0.1U Z 25V
R1924	401 105 4205	MT-GLAZE	33K JA 1/16W	C9140	403 113 3805	CERAMIC 1000P K 50V
R1925	401 105 5301	MT-GLAZE	4.7K JA 1/16W	C9141	403 153 0901	ELECT 100U M 6.3V
R1926	401 105 0702	MT-GLAZE	100K JA 1/16W	C9142	403 164 0204	CERAMIC 0.1U Z 25V
R1927	401 105 1709	MT-GLAZE	150K JA 1/16W	C9143	403 157 4202	CERAMIC 220P J 50V
R1928	401 105 6100	MT-GLAZE	560K JA 1/16W	C9144	403 157 4202	CERAMIC 220P J 50V
R1929	401 105 1501	MT-GLAZE	1.5K JA 1/16W	C9145	403 164 0204	CERAMIC 0.1U Z 25V
R1930	401 105 1501	MT-GLAZE	1.5K JA 1/16W	C9146	403 164 0204	CERAMIC 0.1U Z 25V
R1931	401 105 1501	MT-GLAZE	1.5K JA 1/16W	C9147	403 155 4204	CERAMIC 15P J 50V
R1932	401 105 1501	MT-GLAZE	1.5K JA 1/16W	C9148	403 091 0407	TA-SOLID 1U M 16V
R1936	401 105 5301	MT-GLAZE	4.7K JA 1/16W	C9149	403 164 0204	CERAMIC 0.1U Z 25V
R1937	401 105 0603	MT-GLAZE	10K JA 1/16W	C9150	403 139 7306	CERAMIC 18P J 50V
R1938	401 105 0603	MT-GLAZE	10K JA 1/16W	C9151	403 164 0204	CERAMIC 0.1U Z 25V
R1939	401 105 0603	MT-GLAZE	10K JA 1/16W	C9152	403 164 0204	CERAMIC 0.1U Z 25V
R1940	401 105 0603	MT-GLAZE	10K JA 1/16W	C9153	403 164 0204	CERAMIC 0.1U Z 25V
R1941	401 105 0603	MT-GLAZE	10K JA 1/16W	C9154	403 164 0204	CERAMIC 0.1U Z 25V
R1942	401 105 5400	MT-GLAZE	47K JA 1/16W	C9155	403 164 0204	CERAMIC 0.1U Z 25V
R1943	401 105 2805	MT-GLAZE	2.2K JA 1/16W	C9156	403 114 5600	TA-SOLID 3.3U M 6.3V
R1944	401 105 0603	MT-GLAZE	10K JA 1/16W	C9157	403 114 5600	TA-SOLID 3.3U M 6.3V
R1945	401 105 0603	MT-GLAZE	10K JA 1/16W	C9158	403 164 0204	CERAMIC 0.1U Z 25V
R1950	401 105 5301	MT-GLAZE	4.7K JA 1/16W	C9159	403 164 0204	CERAMIC 0.1U Z 25V
C0MPL,TB-1						
COMPL.NO.	636 023 6035			C9161	403 152 9608	ELECT 47U M 4V
D8601	407 101 5703	LED BR2202S-B1		C9162	403 152 9608	ELECT 47U M 4V
S8601	636 024 1855	SW.PUSH		C9163	403 164 0204	CERAMIC 0.1U Z 25V
C0MPL,CA-1						
COMPL.NO.	636 025 1571			C9164	403 164 0204	CERAMIC 0.1U Z 25V
	636 022 4742	HOLDER		C9165	403 155 1807	CERAMIC 0.01U K 25V
C9101	403 155 1807	CERAMIC	0.01U K 25V	C9166	403 113 3805	CERAMIC 1000P K 50V
C9105	403 157 4202	CERAMIC	220P J 50V	C9167	403 113 3805	CERAMIC 1000P K 50V
C9106	403 157 4202	CERAMIC	220P J 50V	C9168	403 091 0407	TA-SOLID 1U M 16V
C9107	403 157 4202	CERAMIC	220P J 50V	C9169	403 164 0204	CERAMIC 0.1U Z 25V
C9108	403 164 0204	CERAMIC	0.1U Z 25V	C9170	403 164 0204	CERAMIC 0.1U Z 25V
C9109	403 164 0204	CERAMIC	0.1U Z 25V	C9171	403 164 0204	CERAMIC 0.1U Z 25V
C9110	403 153 1403	ELECT	33U M 25V	C9172	403 164 0204	CERAMIC 0.1U Z 25V
C9111	403 152 9608	ELECT	47U M 4V	C9173	403 164 0204	CERAMIC 0.1U Z 25V
C9112	403 153 1403	ELECT	33U M 25V	C9174	403 164 0204	CERAMIC 0.1U Z 25V
C9113	403 164 0204	CERAMIC	0.1U Z 25V	C9175	403 164 0204	CERAMIC 0.1U Z 25V
C9114	403 157 1904	CERAMIC	10P D 50V	C9176	403 164 0204	CERAMIC 0.1U Z 25V
C9115	403 158 7707	TA-SOLID	3.3U M 10V	C9177	403 164 0204	CERAMIC 0.1U Z 25V
C9116	403 158 8902	TA-SOLID	10U M 10V	C9178	403 145 9905	CERAMIC 22P J 50V
OR	403 158 8407	TA-SOLID	6.8U M 10V	C9179	403 114 5600	TA-SOLID 3.3U M 6.3V
C9117	403 153 1205	ELECT	47U M 16V	C9180	403 164 0204	CERAMIC 0.1U Z 25V
C9118	403 153 1205	ELECT	47U M 16V	C9181	403 164 0204	CERAMIC 0.1U Z 25V
C9119	403 153 1205	ELECT	47U M 16V	C9182	403 158 8506	TA-SOLID 4.7U M 16V
C9120	403 113 3805	CERAMIC	1000P K 50V	C9183	403 158 8506	TA-SOLID 4.7U M 16V
C9121	403 139 7702	CERAMIC	7P D 50V	C9184	403 158 8506	TA-SOLID 4.7U M 16V
				D9101	407 113 5609	DIODE DSH015-TL
				D9102	407 086 5606	ZENER DIODE RD2.7MB1
				D9106	407 120 5005	PHOTO DIODE AM-33CYT-01
				D9107	407 113 1007	DIODE 1SS309-TE85L
				D9109	407 113 5609	DIODE DSH015-TL

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
D9113	407 106 1601	DEODE DCG015-TL	R9027	401 105 5301	MT-GLAZE 4.7K JA 1/16W
D9114	407 106 1601	DEODE DCG015-TL	R9028	401 105 0405	MT-GLAZE 100 JA 1/16W
D9115	407 120 7603	ZENER DIODE MA8068-M-(TW)	R9029	401 105 4205	MT-GLAZE 33K JA 1/16W
F9101 A	404 040 5306	CERAMIC 47P M 100V	R9030	401 105 7909	MT-GLAZE 0 ZA 1/16W
F9102 A	404 040 5504	CERAMIC 470P M 100V	R9032	401 105 6605	MT-GLAZE 6.8K JA 1/16W
IC901	409 169 5008	IC LC9903-SH	R9033	401 105 4205	MT-GLAZE 33K JA 1/16W
IC902	409 167 8001	IC LB8901M-T1	R9034	401 105 2102	MT-GLAZE 18K JA 1/16W
IC903	409 167 8100	IC LB8902M-T1	R9037	401 105 3307	MT-GLAZE 2.7K JA 1/16W
IC905	409 167 7608	IC LA7264M-T1	R9038	401 105 0603	MT-GLAZE 10K JA 1/16W
IC906	409 167 2702	IC LA7262M	R9039	401 105 6605	MT-GLAZE 6.8K JA 1/16W
IC907	409 018 3704	IC LA6358M-T1	R9040	401 105 6605	MT-GLAZE 6.8K JA 1/16W
IC908	409 617 7707	IC LA7266M	R9041	401 105 6001	MT-GLAZE 5.6K JA 1/16W
IC911	409 018 3704	IC LA6358M-T1	R9042	401 105 6605	MT-GLAZE 6.8K JA 1/16W
IC912	409 185 4009	IC LA6601M-T1	R9043	401 105 1600	MT-GLAZE 15K JA 1/16W
IC951	409 137 9007	IC TC4S81F(TE85L)	R9044	401 105 7404	MT-GLAZE 8.2K JA 1/16W
OR	409 159 2406	IC SC14S81FEL	R9045	401 105 1600	MT-GLAZE 15K JA 1/16W
IC952	409 149 5301	IC TC7S00F(TE85L)	R9052	401 105 5301	MT-GLAZE 4.7K JA 1/16W
OR	409 181 4201	IC SC7S00FEL	R9053	401 105 5301	MT-GLAZE 4.7K JA 1/16W
IC953	409 149 5301	IC TC7S00F(TE85L)	R9054	401 105 0603	MT-GLAZE 10K JA 1/16W
OR	409 181 4201	IC SC7S00FEL	R9055	401 105 7909	MT-GLAZE 0 ZA 1/16W
IC954	409 167 7103	IC NJM2107F-TE1	R9056	401 105 1907	MT-GLAZE 180 JA 1/16W
IC955	409 167 7103	IC NJM2107F-TE1	R9057	401 105 0702	MT-GLAZE 100K JA 1/16W
IC956	409 155 7702	IC TC4S66F(TE85L)	R9058	401 105 0603	MT-GLAZE 10K JA 1/16W
OR	409 180 1409	IC SC14S66FEL	R9060	401 105 8005	MT-GLAZE 1M JA 1/16W
IC957	409 167 7103	IC NJM2107F-TE1	R9063	401 105 3000	MT-GLAZE 220K JA 1/16W
IC958	409 167 7202	IC NJM2406F-TE1	R9066	401 105 6001	MT-GLAZE 5.6K JA 1/16W
IC959	409 167 7103	IC NJM2107F-TE1	R9067	401 105 4205	MT-GLAZE 33K JA 1/16W
IC960	409 167 7103	IC NJM2107F-TE1	R9069	401 105 1600	MT-GLAZE 15K JA 1/16W
L9101	636 002 8821	RF CHOKE,10UH	R9071	401 105 1600	MT-GLAZE 15K JA 1/16W
L9102	636 002 8821	RF CHOKE,10UH	R9072	401 105 2904	MT-GLAZE 22K JA 1/16W
L9103	636 003 2347	HF CHOKE,3.3UH	R9073	401 105 6605	MT-GLAZE 6.8K JA 1/16W
L9104	636 002 8821	RF CHOKE,10UH	R9074	401 105 4106	MT-GLAZE 3.3K JA 1/16W
L9105	636 003 2194	HF CHOKE,56UH	R9075	401 105 6605	MT-GLAZE 6.8K JA 1/16W
Q9101	405 077 2207	TR 2SA1622-6-TL	R9076	401 105 4106	MT-GLAZE 3.3K JA 1/16W
Q9102	405 078 7003	TR 2SC4397-TL	R9077	401 105 6605	MT-GLAZE 6.8K JA 1/16W
Q9103	405 077 3402	TR 2SC4211-6-TL	R9078	401 105 4106	MT-GLAZE 3.3K JA 1/16W
Q9106	405 079 6302	TR 2SC4399-5-TL	R9079	401 105 6605	MT-GLAZE 6.8K JA 1/16W
Q9108	405 077 3402	TR 2SC4211-6-TL	R9081	401 105 5301	MT-GLAZE 4.7K JA 1/16W
Q9109	405 079 6302	TR 2SC4399-5-TL	R9082	401 105 6605	MT-GLAZE 6.8K JA 1/16W
Q9110	405 079 6302	TR 2SC4399-5-TL	R9083	401 105 5301	MT-GLAZE 4.7K JA 1/16W
Q9111	405 064 1800	TR FM65-T99	R9084	401 105 4205	MT-GLAZE 33K JA 1/16W
Q9112	405 092 2107	TR 2SC4097-T106R	R9085	401 105 4205	MT-GLAZE 33K JA 1/16W
Q9113	405 092 1407	TR 2SA1577-T106-R	R9086	401 105 4205	MT-GLAZE 33K JA 1/16W
Q9114	405 092 2107	TR 2SC4097-T106R	R9087	401 105 4205	MT-GLAZE 33K JA 1/16W
Q9115	405 092 1407	TR 2SA1577-T106-R	R9088	401 105 0504	MT-GLAZE 1K JA 1/16W
R9002	401 105 7909	MT-GLAZE 0 ZA 1/16W	R9089	401 105 0504	MT-GLAZE 1K JA 1/16W
R9003	401 105 0603	MT-GLAZE 10K JA 1/16W	R9091	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9004	401 105 7404	MT-GLAZE 8.2K JA 1/16W	R9092	401 105 1105	MT-GLAZE 12K JA 1/16W
R9005	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R9093	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9006	401 105 4205	MT-GLAZE 33K JA 1/16W	R9094	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9011	401 105 0504	MT-GLAZE 1K JA 1/16W	R9095	401 105 0603	MT-GLAZE 10K JA 1/16W
R9012	401 105 0504	MT-GLAZE 1K JA 1/16W	R9097	401 105 1600	MT-GLAZE 15K JA 1/16W
R9013	401 105 0504	MT-GLAZE 1K JA 1/16W	R9100	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9014	401 105 3901	MT-GLAZE 33 JA 1/16W	R9101	401 105 0603	MT-GLAZE 10K JA 1/16W
R9015	401 105 3901	MT-GLAZE 33 JA 1/16W	R9103	401 105 6407	MT-GLAZE 68 JA 1/16W
R9016	401 105 7909	MT-GLAZE 0 ZA 1/16W	R9104	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9017	401 105 0306	MT-GLAZE 10 JA 1/16W	R9105	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9018	401 105 0306	MT-GLAZE 10 JA 1/16W	R9106	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9019	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R9107	401 105 0504	MT-GLAZE 1K JA 1/16W
R9020	401 105 0504	MT-GLAZE 1K JA 1/16W	R9108	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9021	401 105 6001	MT-GLAZE 5.6K JA 1/16W	R9110	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9022	401 105 3000	MT-GLAZE 220K JA 1/16W	R9117	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9023	401 105 0603	MT-GLAZE 10K JA 1/16W	R9118	401 105 1105	MT-GLAZE 12K JA 1/16W
R9024	401 105 6704	MT-GLAZE 680K JA 1/16W	R9119	401 105 6605	MT-GLAZE 6.8K JA 1/16W
			R9121	401 105 1105	MT-GLAZE 12K JA 1/16W
			R9122	401 105 6605	MT-GLAZE 6.8K JA 1/16W
			R9123	401 105 7909	MT-GLAZE 0 ZA 1/16W
			R9124	401 105 6001	MT-GLAZE 5.6K JA 1/16W

<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	
R9125	401 105 6605	MT-GLAZE	6.8K JA 1/16W	T9101	636 003 4488	HF COIL TRANS
R9126	401 105 4106	MT-GLAZE	3.3K JA 1/16W	T9102	636 021 3371	FILTER
R9127	401 105 6001	MT-GLAZE	5.6K JA 1/16W			
R9128	401 105 6605	MT-GLAZE	6.8K JA 1/16W	VR901	636 019 7992	SVR 22K OHM
R9129	401 105 4106	MT-GLAZE	3.3K JA 1/16W	VR902	636 019 7992	SVR 22K OHM
R9131	401 105 6100	MT-GLAZE	560K JA 1/16W	VR903	636 019 7909	SVR 10K OHM
R9132	401 105 3406	MT-GLAZE	27K JA 1/16W	VR904	636 019 8029	SVR 3.3K OHM
R9133	401 105 5301	MT-GLAZE	4.7K JA 1/16W	VR905	636 019 8067	SVR 4.7K OHM
R9134	401 105 3406	MT-GLAZE	27K JA 1/16W	VR906	636 019 7909	SVR 10K OHM
R9135	401 105 5301	MT-GLAZE	4.7K JA 1/16W	VR907	636 019 7909	SVR 10K OHM
R9136	401 105 6100	MT-GLAZE	560K JA 1/16W	VR908	636 019 7909	SVR 10K OHM
R9137	401 105 4809	MT-GLAZE	390K JA 1/16W	VR909	636 019 7909	SVR 10K OHM
R9140	401 105 6100	MT-GLAZE	560K JA 1/16W	VR910	636 019 7909	SVR 10K OHM
R9141	401 105 0603	MT-GLAZE	10K JA 1/16W	VR911	636 019 7909	SVR 10K OHM
R9142	401 105 0603	MT-GLAZE	10K JA 1/16W	VR912	636 019 7893	SVR 1K OHM
R9143	401 105 6605	MT-GLAZE	6.8K JA 1/16W	VR913	636 019 7893	SVR 1K OHM
R9144	401 105 1105	MT-GLAZE	12K JA 1/16W	VR914	636 019 7893	SVR 1K OHM
R9145	401 105 1105	MT-GLAZE	12K JA 1/16W	VR915	636 019 7909	SVR 10K OHM
R9146	401 105 6605	MT-GLAZE	6.8K JA 1/16W	VR916	636 019 7909	SVR 10K OHM
R9147	401 105 2102	MT-GLAZE	18K JA 1/16W	VR917	636 019 8005	SVR 220K OHM
R9148	401 105 2904	MT-GLAZE	22K JA 1/16W	VR918	636 019 7909	SVR 10K OHM
R9149	401 105 7602	MT-GLAZE	820K JA 1/16W	VR919	636 019 8067	SVR 4.7K OHM
R9150	401 105 1709	MT-GLAZE	150K JA 1/16W	VR920	636 019 7909	SVR 10K OHM
R9151	401 105 6100	MT-GLAZE	560K JA 1/16W	VR921	636 019 7909	SVR 10K OHM
R9152	401 105 3000	MT-GLAZE	220K JA 1/16W	VR922	636 019 7909	SVR 10K OHM
R9153	401 105 7909	MT-GLAZE	0 ZA 1/16W	VR923	636 019 7909	SVR 10K OHM
R9154	401 105 2201	MT-GLAZE	180K JA 1/16W	VR924	636 019 7909	SVR 10K OHM
R9155	401 105 0702	MT-GLAZE	100K JA 1/16W	VR926	636 019 7909	SVR 10K OHM
R9156	401 105 6001	MT-GLAZE	5.6K JA 1/16W	VR927	636 019 7909	SVR 10K OHM
R9157	401 105 5301	MT-GLAZE	4.7K JA 1/16W	X9101	636 020 4331	CRYSTAL UNIT.28.375MHZ
R9158	401 105 0603	MT-GLAZE	10K JA 1/16W			
R9159	401 105 4601	MT-GLAZE	3.9K JA 1/16W	C9201	403 045 7803	ELECT
R9161	401 105 1501	MT-GLAZE	1.5K JA 1/16W	C9202	403 157 4202	CERAMIC
R9162	401 105 8104	MT-GLAZE	56K JA 1/16W	C9204	403 114 5600	TA-SOLID
R9163	401 105 0603	MT-GLAZE	10K JA 1/16W	C9205	403 155 1609	CERAMIC
R9164	401 105 0702	MT-GLAZE	100K JA 1/16W	C9206	403 155 1609	CERAMIC
R9165	401 105 2003	MT-GLAZE	1.8K JA 1/16W	C9207	403 113 3805	CERAMIC
R9166	401 105 2003	MT-GLAZE	1.8K JA 1/16W	C9208	403 113 3805	CERAMIC
R9167	401 105 5400	MT-GLAZE	47K JA 1/16W	C9209	403 157 4202	CERAMIC
R9168	401 105 1600	MT-GLAZE	15K JA 1/16W	C9211	403 114 5600	TA-SOLID
R9169	401 105 6001	MT-GLAZE	5.6K JA 1/16W	C9212	403 113 3805	CERAMIC
R9170	401 114 0908	MT-GLAZE	3.3M JA 1/16W	C9213	403 113 3805	CERAMIC
R9171	401 105 1600	MT-GLAZE	15K JA 1/16W	C9214	403 089 6206	TA-SOLID
R9172	401 105 1105	MT-GLAZE	12K JA 1/16W	C9215	403 153 0901	ELECT
R9173	401 105 5301	MT-GLAZE	4.7K JA 1/16W	C9216	403 164 0204	CERAMIC
R9174	401 105 0603	MT-GLAZE	10K JA 1/16W	C9217	403 113 3805	CERAMIC
R9177	401 105 7909	MT-GLAZE	0 ZA 1/16W	C9218	403 114 5600	TA-SOLID
R9178	401 105 7909	MT-GLAZE	0 ZA 1/16W	C9219	403 163 9604	CERAMIC
R9179	401 105 6407	MT-GLAZE	68 JA 1/16W	C9221	403 157 7302	CERAMIC
R9180	401 105 7206	MT-GLAZE	82 JA 1/16W	C9222	403 114 5600	TA-SOLID
R9181	401 105 4106	MT-GLAZE	3.3K JA 1/16W	C9223	403 158 7608	TA-SOLID
R9182	401 105 4106	MT-GLAZE	3.3K JA 1/16W	C9225	403 164 0204	CERAMIC
R9183	401 105 4106	MT-GLAZE	3.3K JA 1/16W	C9226	403 114 5402	TA-SOLID
R9185	401 105 2003	MT-GLAZE	1.8K JA 1/16W	C9227	403 164 0204	CERAMIC
R9186	401 105 6001	MT-GLAZE	5.6K JA 1/16W	C9228	403 091 0407	TA-SOLID
R9187	401 105 7909	MT-GLAZE	0 ZA 1/16W	C9231	403 164 0204	CERAMIC
R9188	401 105 7909	MT-GLAZE	0 ZA 1/16W	C9232	403 157 6107	CERAMIC
R9191	401 105 8005	MT-GLAZE	1M JA 1/16W	C9234	403 114 5600	TA-SOLID
R9192	401 105 8005	MT-GLAZE	1M JA 1/16W	D9201	407 113 5609	DIODE DSH015-TL
R9193	401 105 8005	MT-GLAZE	1M JA 1/16W	D9202	407 057 8902	ZENER DIODE RD8.2MB2
R9194	401 105 8005	MT-GLAZE	1M JA 1/16W	D9203	407 057 8902	ZENER DIODE RD8.2MB2
R9195	401 105 8005	MT-GLAZE	1M JA 1/16W	D9204	407 113 5609	DIODE DSH015-TL
R9196	401 105 8005	MT-GLAZE	1M JA 1/16W			
R9197	401 105 8005	MT-GLAZE	1M JA 1/16W			
R9198	401 105 8005	MT-GLAZE	1M JA 1/16W			
R9199	401 105 7909	MT-GLAZE	0 ZA 1/16W			
S9101	636 023 3546	SW,SLIDE				

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
D9205	407 113 5609	DIODE DSH015-TL	R9236	401 105 4106	MT-GLAZE 3.3K JA 1/16W
D9206	407 113 0505	DIODE 1SS302-TE85L	R9237	401 105 2805	MT-GLAZE 2.2K JA 1/16W
F9201 △	404 040 5306	CERAMIC 47P M 100V	R9238	401 105 4700	MT-GLAZE 39K JA 1/16W
F9202 △	404 040 5306	CERAMIC 47P M 100V	R9239	401 105 5202	MT-GLAZE 470 JA 1/16W
F9203 △	404 040 5306	CERAMIC 47P M 100V	R9241	401 105 7909	MT-GLAZE 0 ZA 1/16W
IC921	410 061 0404	IC MSM83C154U-618GS	R9242	401 105 1600	MT-GLAZE 15K JA 1/16W
IC922	409 152 6906	IC LC9123A-163	R9243	401 105 1709	MT-GLAZE 150K JA 1/16W
IC923	409 167 7806	IC LC89066M-T1	R9244	401 105 7503	MT-GLAZE 82K JA 1/16W
IC924	409 155 7405	IC TC4S69F(TE85L)	R9245	401 105 4700	MT-GLAZE 39K JA 1/16W
OR	409 180 1300	IC SC14S69FEL	R9246	401 105 0603	MT-GLAZE 10K JA 1/16W
IC925	409 155 7405	IC TC4S69F(TE85L)	R9247	401 105 0603	MT-GLAZE 10K JA 1/16W
OR	409 180 1300	IC SC14S69FEL	R9248	401 105 1600	MT-GLAZE 15K JA 1/16W
IC926	409 111 6008	IC BA225AF-T1	R9251	401 105 5400	MT-GLAZE 47K JA 1/16W
IC927	409 018 3704	IC LA6358M-T1	R9252	401 105 1600	MT-GLAZE 15K JA 1/16W
IC928	410 023 8806	IC MB3763PF-G-BND-TF	R9253	401 105 4601	MT-GLAZE 3.9K JA 1/16W
IC929	409 166 9801	IC NJN4560E-T1	R9254	401 105 1105	MT-GLAZE 12K JA 1/16W
			R9255	401 105 7404	MT-GLAZE 8.2K JA 1/16W
			R9256	401 105 7909	MT-GLAZE 0 ZA 1/16W
			R9257	401 105 7909	MT-GLAZE 0 ZA 1/16W
Q9201	405 077 3402	TR 2SC4211-6-TL	R9258	401 105 6704	MT-GLAZE 680K JA 1/16W
Q9202	405 074 0701	TR IMX2-109	R9262	401 105 0603	MT-GLAZE 10K JA 1/16W
Q9203	405 077 3402	TR 2SC4211-6-TL	R9263	401 105 6001	MT-GLAZE 5.6K JA 1/16W
Q9204	405 077 2207	TR 2SA1622-6-TL	R9264	401 105 7909	MT-GLAZE 0 ZA 1/16W
Q9205	405 077 2207	TR 2SA1622-6-TL	R9265	401 105 0306	MT-GLAZE 10 JA 1/16W
Q9206	405 077 3402	TR 2SC4211-6-TL	R9266	401 105 1600	MT-GLAZE 15K JA 1/16W
Q9207	405 077 3402	TR 2SC4211-6-TL	R9267	401 105 0306	MT-GLAZE 10 JA 1/16W
Q9208	405 077 3402	TR 2SC4211-6-TL	R9268	401 105 0603	MT-GLAZE 10K JA 1/16W
Q9209	405 078 7003	TR 2SC4397-TL	R9269	401 105 7909	MT-GLAZE 0 ZA 1/16W
Q9211	405 077 3402	TR 2SC4211-6-TL	R9272	401 105 8104	MT-GLAZE 56K JA 1/16W
Q9212	405 078 7003	TR 2SC4397-TL	R9273	401 105 8104	MT-GLAZE 56K JA 1/16W
Q9213	405 079 2007	TR FMG8-T99	R9274	401 105 8104	MT-GLAZE 56K JA 1/16W
Q9214	405 069 5902	TR FM45-T99	R9275	401 105 4601	MT-GLAZE 3.9K JA 1/16W
Q9216	405 086 4209	TR HN1C01F-TE85L	R9276	401 105 5509	MT-GLAZE 470K JA 1/16W
Q9217	405 074 0701	TR IMX2-109	R9277	401 105 3000	MT-GLAZE 220K JA 1/16W
Q9218	405 074 0701	TR IMX2-109	R9278	401 105 0702	MT-GLAZE 100K JA 1/16W
Q9219	405 077 3402	TR 2SC4211-6-TL	R9279	401 105 0702	MT-GLAZE 100K JA 1/16W
			R9281	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9201	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R9282	401 105 0603	MT-GLAZE 10K JA 1/16W
R9202	401 105 0504	MT-GLAZE 1K JA 1/16W	R9291	401 105 0504	MT-GLAZE 1K JA 1/16W
R9203	401 105 4007	MT-GLAZE 330 JA 1/16W	R9299	401 105 0603	MT-GLAZE 10K JA 1/16W
R9204	401 105 2805	MT-GLAZE 2.2K JA 1/16W	T9201	636 003 4600	HF COIL TRANS
R9205	401 105 7404	MT-GLAZE 8.2K JA 1/16W			COMPL.VE-1
R9206	401 105 4007	MT-GLAZE 330 JA 1/16W			COMPL.NO. 636 026 8036
R9207	401 105 0504	MT-GLAZE 1K JA 1/16W			
R9208	401 113 3207	MT-GLAZE 4.7 KA 1/16W			
R9209	401 105 6605	MT-GLAZE 6.8K JA 1/16W			
R9211	401 105 0603	MT-GLAZE 10K JA 1/16W	C0001	403 135 6808	ELECT 1U M 50V
R9212	401 113 6406	MT-GLAZE 5.1K JA 1/16W	C0003	403 163 8003	ELECT 33U M 10V
R9213	401 105 2805	MT-GLAZE 2.2K JA 1/16W	C0004	403 067 9809	CERAMIC 0.1U K 25V
R9214	401 105 6605	MT-GLAZE 6.8K JA 1/16W	C0005	403 163 8003	ELECT 33U M 10V
R9215	401 105 3000	MT-GLAZE 220K JA 1/16W	C0006	403 167 6005	CERAMIC 0.22U M 16V
R9217	401 113 3207	MT-GLAZE 4.7 KA 1/16W	C0007	403 073 1200	CERAMIC 0.033U K 50V
R9218	401 105 5301	MT-GLAZE 4.7K JA 1/16W	C0008	403 022 8205	CERAMIC 33P J 50V
R9219	401 105 0504	MT-GLAZE 1K JA 1/16W	C0009	403 067 9809	CERAMIC 0.1U K 25V
R9220	401 105 8104	MT-GLAZE 56K JA 1/16W	C0010	403 134 9008	ELECT 10U M 16V
R9221	401 105 0603	MT-GLAZE 10K JA 1/16W	C0011	403 167 6104	CERAMIC 3900P K 100V
R9222	401 105 6605	MT-GLAZE 6.8K JA 1/16W	C0012	403 159 8109	ELECT 100U M 6.3V
R9223	401 105 0603	MT-GLAZE 10K JA 1/16W	C0013	403 159 8109	ELECT 100U M 6.3V
R9224	401 105 0603	MT-GLAZE 10K JA 1/16W	C0014 △	403 167 6302	CERAMIC 2200P K 1K
R9225	401 105 4106	MT-GLAZE 3.3K JA 1/16W	C0015	403 167 6203	CERAMIC 0.022U K 100V
R9226	401 105 6605	MT-GLAZE 6.8K JA 1/16W	C0016 △	403 167 6302	CERAMIC 2200P K 1K
R9227	401 105 0603	MT-GLAZE 10K JA 1/16W	C0017	403 167 7002	ELECT 4.7U M 50V
R9228	401 105 7909	MT-GLAZE 0 ZA 1/16W	C0018	403 093 7206	OS-SOLID 22U M 10V
R9229	401 105 6001	MT-GLAZE 5.6K JA 1/16W			
R9231	401 105 0702	MT-GLAZE 100K JA 1/16W	D0001	407 069 4909	DIODE DSB010-TA
R9232	401 105 5509	MT-GLAZE 470K JA 1/16W	D0003	407 066 8207	DIODE SB02-09CP
R9233	401 105 6001	MT-GLAZE 5.6K JA 1/16W	D0004	407 101 3303	DIODE ESJ04-02
R9234	401 105 7602	MT-GLAZE 820K JA 1/16W			
R9235	401 105 4304	MT-GLAZE 330K JA 1/16W	IC001	409 174 0708	IC AN2512S-(T1)

<u>LOCATION</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>			
L0002 △	636 024 3057	COIL,LINEARITY			
L0003 △	636 024 3019	COIL,INDUCTOR 150UH			
Q0001 △	405 047 3500	TR ZSC3646-S-TD			
Q0002	405 043 8905	TR 2SA1257-65			
Q0004	405 092 4200	TR 2SA1576-R-T106			
R0001	401 037 5707	MT-GLAZE	100K JA 1/10W		
R0002	401 038 7403	MT-GLAZE	510K JA 1/10W		
R0003	401 037 7909	MT-GLAZE	1.5K JA 1/10W		
R0004	401 037 5202	MT-GLAZE	100 JA 1/10W		
R0005	401 038 6000	MT-GLAZE	43K JA 1/10W		
R0006	401 090 2002	MT-GLAZE	3.9 JA 1/10W		
R0007	401 037 5400	MT-GLAZE	1K JA 1/10W		
R0008	401 037 5400	MT-GLAZE	1K JA 1/10W		
R0009	401 037 8203	MT-GLAZE	1.5M JA 1/10W		
R0010	401 038 9209	MT-GLAZE	6.8K JA 1/10W		
R0011	401 038 6406	MT-GLAZE	4.7K JA 1/10W		
R0012	401 039 0403	MT-GLAZE	8.2K JA 1/10W		
R0013	401 038 3900	MT-GLAZE	3.3M JA 1/10W		
R0014	401 037 5806	MT-GLAZE	1M JA 1/10W		
R0015	401 037 8203	MT-GLAZE	1.5M JA 1/10W		
R0016 △	401 037 6902	MT-GLAZE	120K JA 1/10W		
R0017	401 037 5806	MT-GLAZE	1M JA 1/10W		
R0018	401 037 5400	MT-GLAZE	1K JA 1/10W		
T0001 △	636 024 3026	TRANS,FLYBACK			
VR002	636 024 3064	VR.CEMI 220 OHM			
VR003	636 024 3071	VR.CEMI 33K OHM			
VR004	636 000 3941	VR			
VR005	636 000 3927	VR			
COMPL,TC-1					
COMPL.NO.	636 026 7244				
S9301	636 023 3539	SW,SLIDE			
S9302	636 023 3553	SW,PUSH			
S9303	636 023 3553	SW,PUSH			
S9304	636 023 3553	SW,PUSH			
S9305	636 023 3553	SW,PUSH			
COMPL,TC-4					
COMPL.NO.	636 025 8860				
	636 026 6513	PAD			
C9401	403 155 4204	CERAMIC	15P J 50U		
C9403	403 113 3805	CERAMIC	1000P K 50V		
C9404	403 113 3805	CERAMIC	1000P K 50V		
C9405	403 155 1807	CERAMIC	0.01U K 25V		
C9406	403 164 0204	CERAMIC	0.1U Z 25V		
C9407	403 114 5600	TA-SOLID	3.3U M 6.3V		
C9408	403 164 0204	CERAMIC	0.1U Z 25V		
CT941	636 026 4014	CAP,TRIM 30P-W			
IC941	409 183 2007	IC CXD1159Q			
R9401	401 105 0702	MT-GLAZE	100K JA 1/16W		
R9402	401 105 0603	MT-GLAZE	10K JA 1/16W		
R9403	401 105 8203	MT-GLAZE	68K JA 1/16W		
R9404	401 105 8005	MT-GLAZE	1M JA 1/16W		
R9405	401 105 0405	MT-GLAZE	100 JA 1/16W		
R9406	401 105 0504	MT-GLAZE	1K JA 1/16W		
VC941	407 099 2906	VARACTOR DI 1SV200-11TLC			
X9401	636 000 4955	CRYSTAL,17.734476MHZ			

SCHEMATIC DIAGRAM & PRINTED WIRING BOARD

MODEL VEM-S1P (SANYO)
 FVC-P1000 (FISHER)

CONTENTS

OVERALL WIRING DIAGRAM, SEMICONDUCTORS	A
P.C.B. CA-1	B
P.C.B. CA-2	C
P.C.B. VF-1	D
P.C.B. TB-1	
P.C.B. TB-2	
P.C.B. VP-1	E
P.C.B. VD-1	F
P.C.B. SV-1	G
P.C.B. SY-1	H
P.C.B. TC-1	I
P.C.B. TC-2	
P.C.B. TC-3	
P.C.B. TC-4	J

- — : +B bus.
- Voltage values: Relative to ground, measured with a DC digital multimeter
- The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.
- All resistors are in ohms.
- All capacitors are in μF (p : pF).
- All coils are in mH (μ : μH).

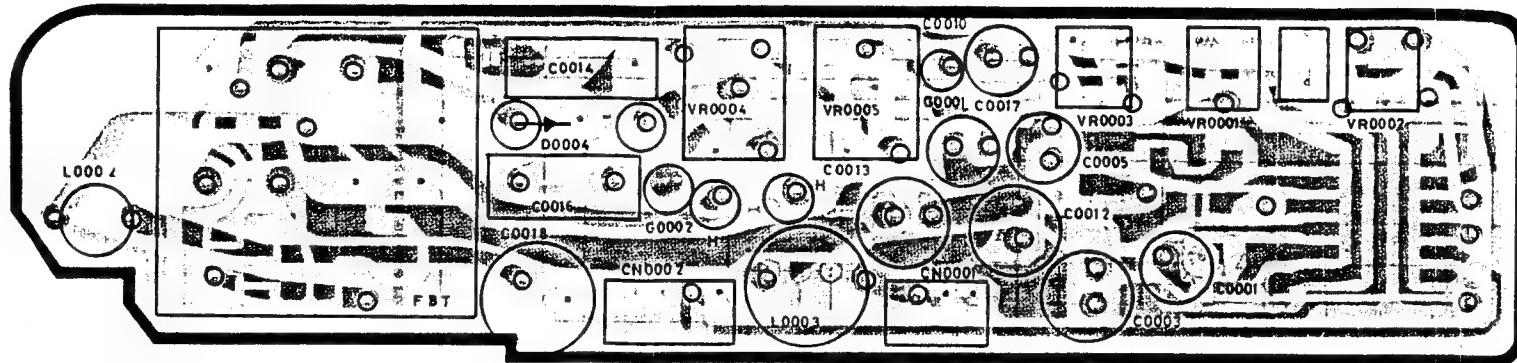
- Cautions

Pattern face side : Parts on the pattern
(Solder Side) face side seen from
the pattern face are indicated.

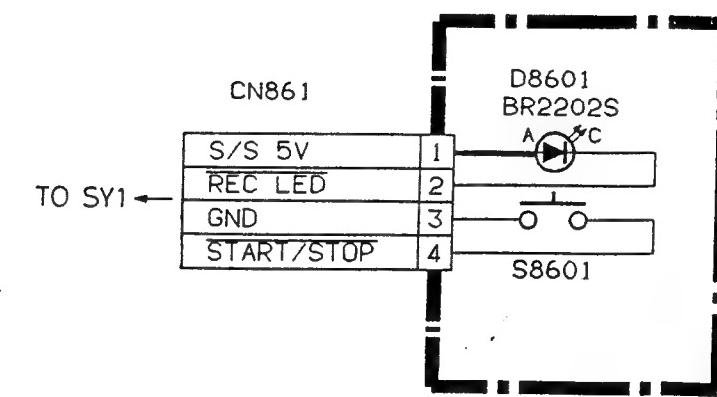
Parts face side : Parts on the parts
(Component Side) face side seen from
the pattern face are indicated.

K
J
I
H
G
F
E
D
C
B
A

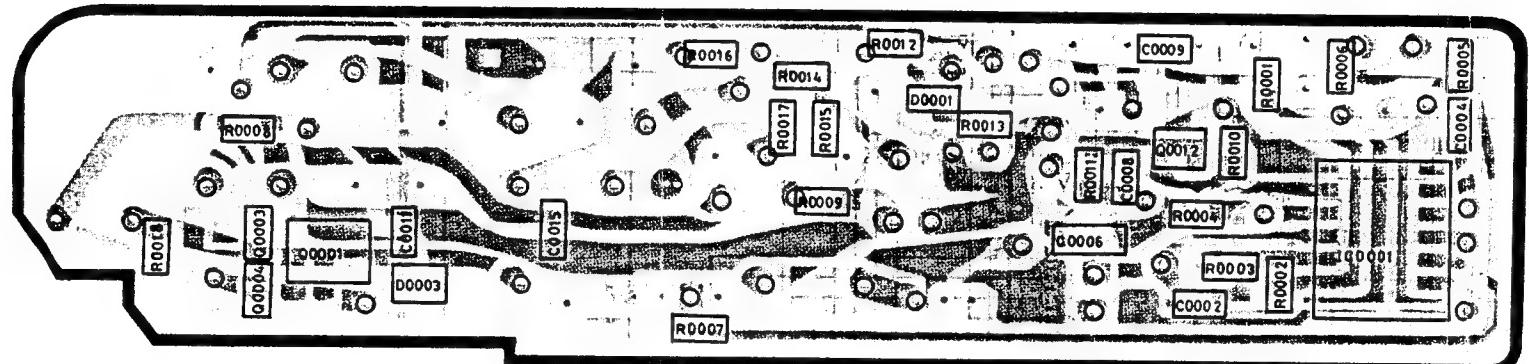
VF-1 BOARD SIDE A



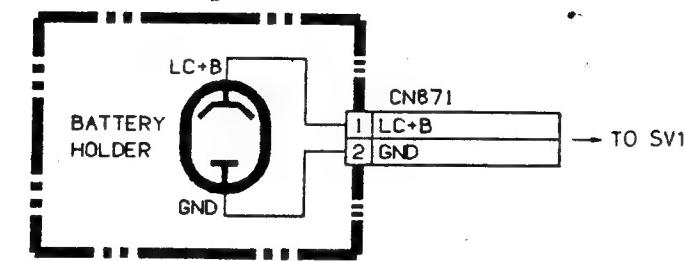
TB-1 CIRCUIT



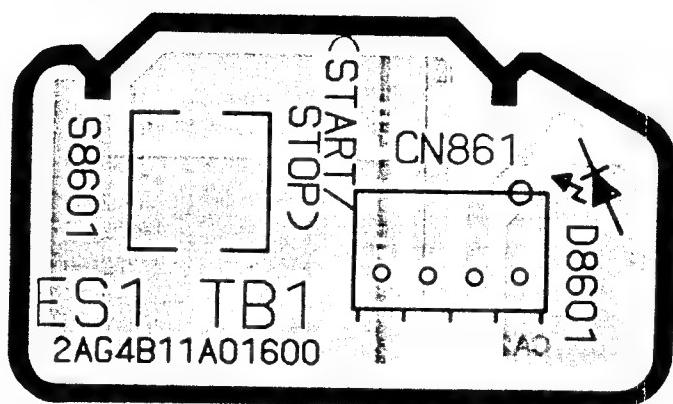
VF-1 BOARD SIDE B



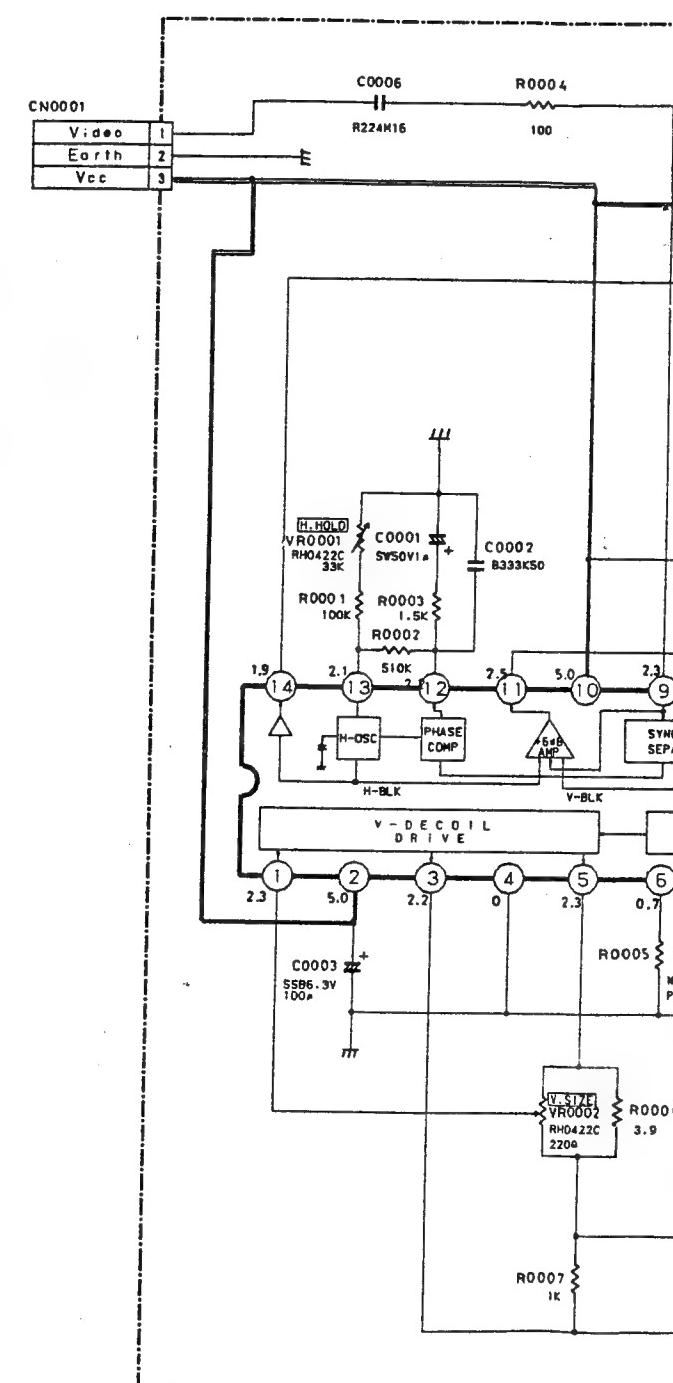
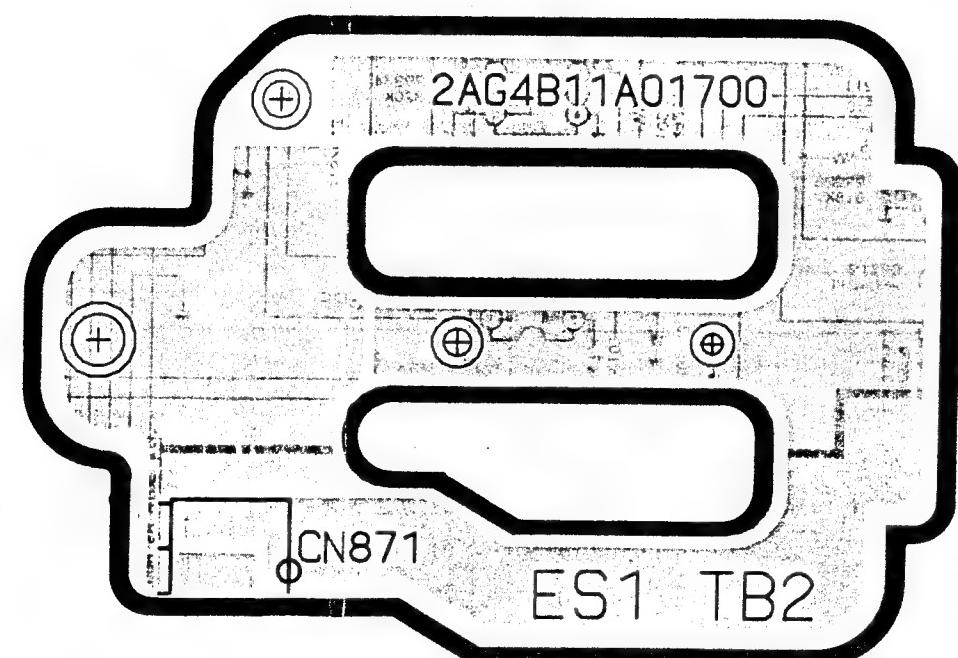
TB-2 CIRCUIT



TB-1 BOARD



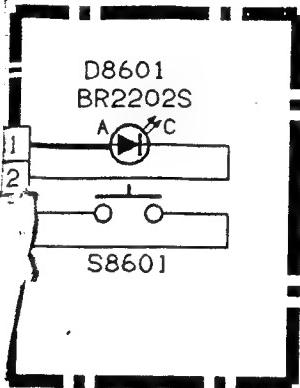
TB-2 BOARD



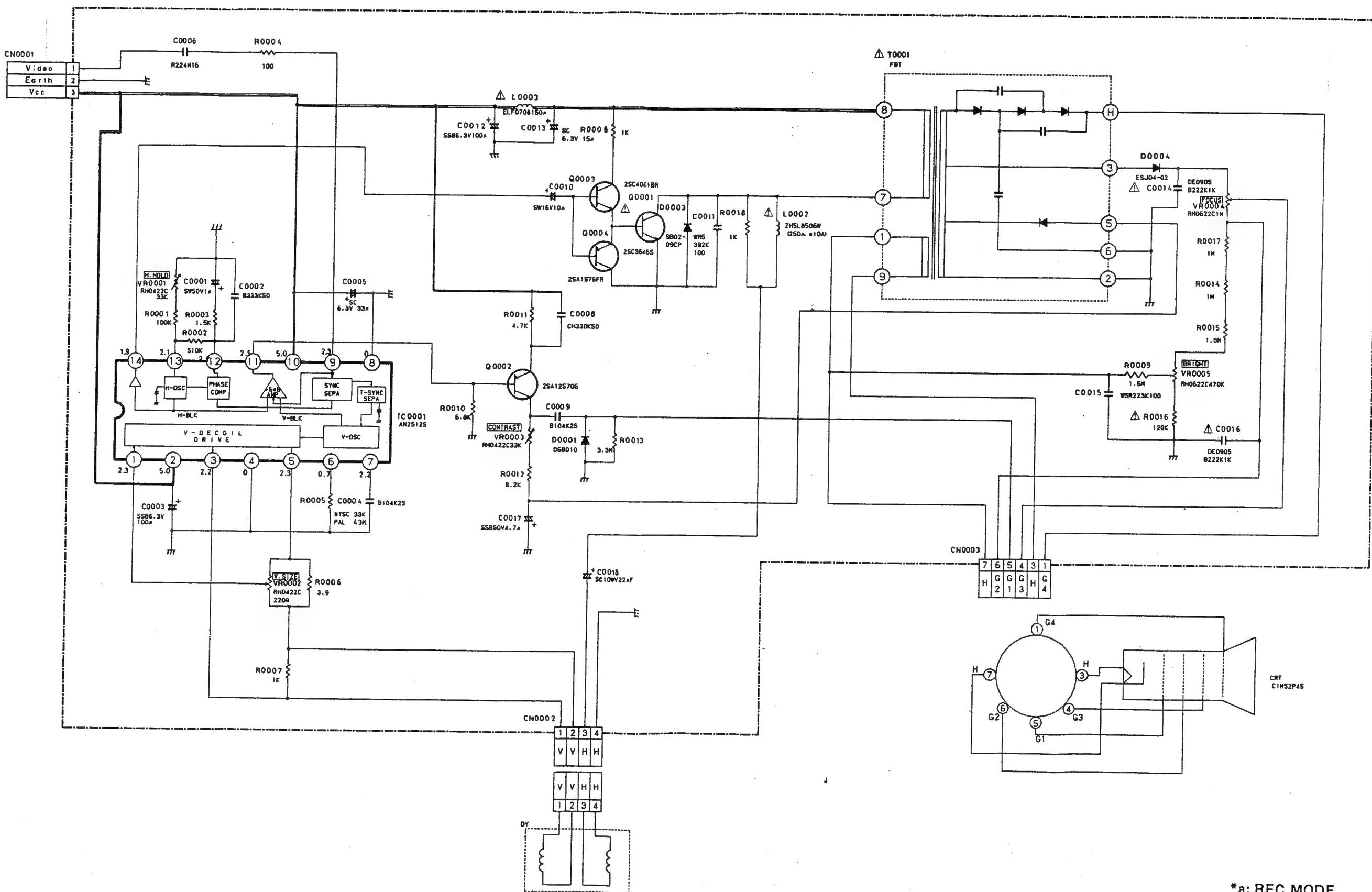
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

UIT

VF-1 CIRCUIT



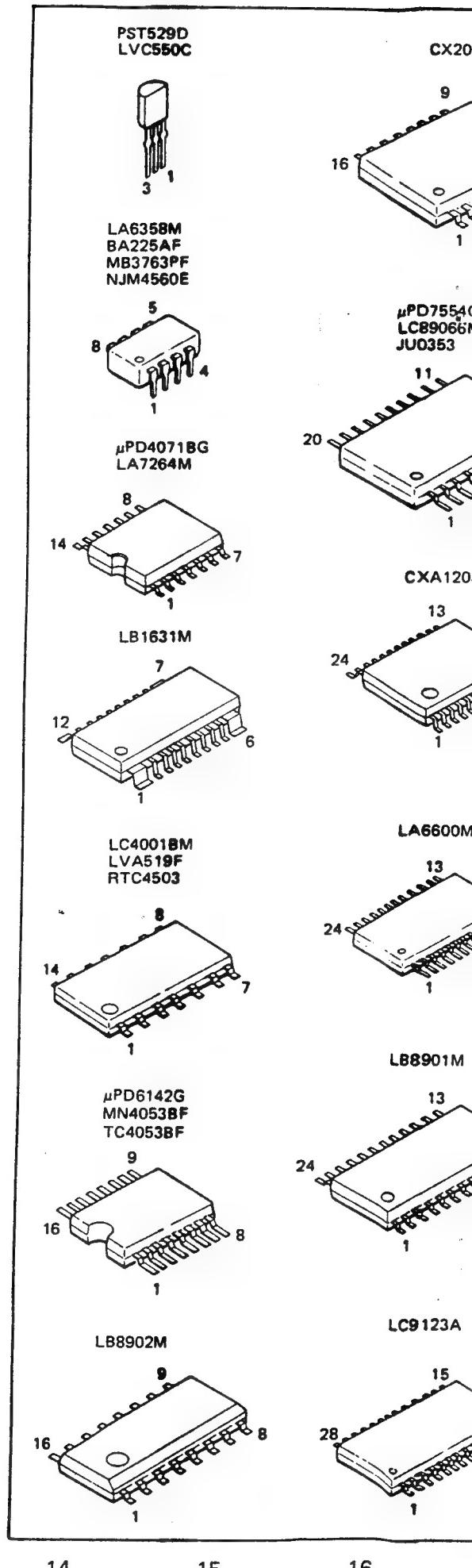
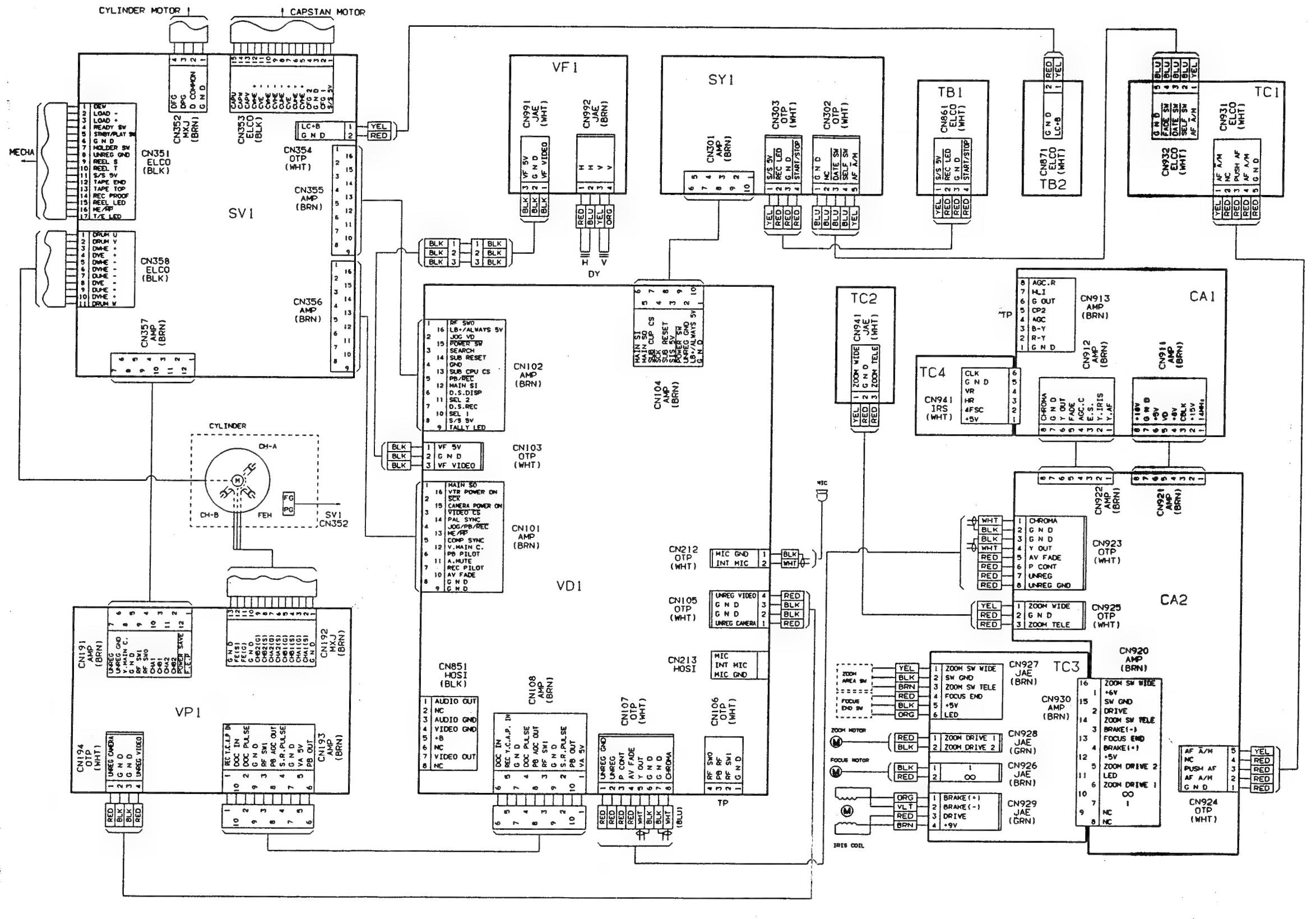
JIT

I871
B
TO SV1

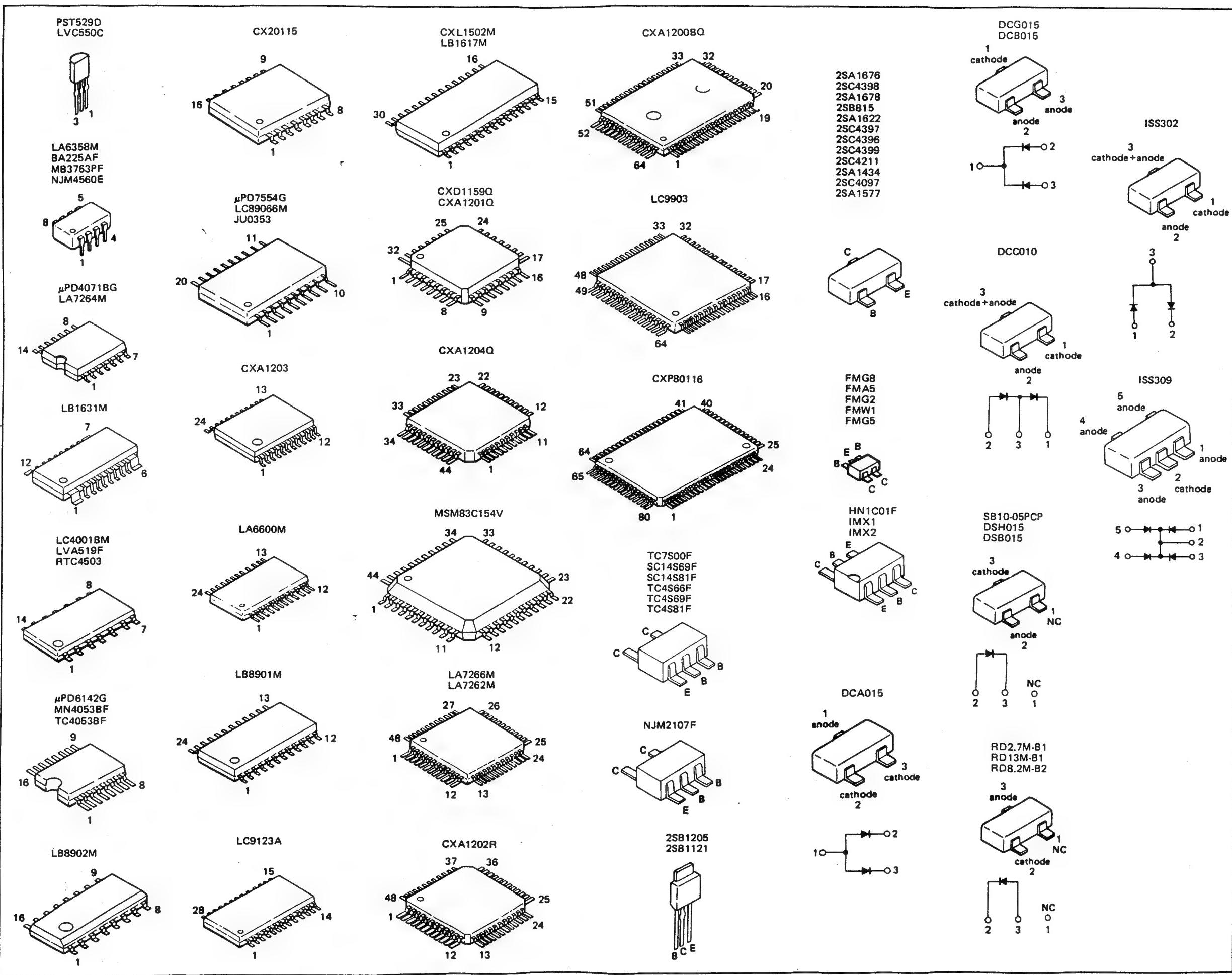
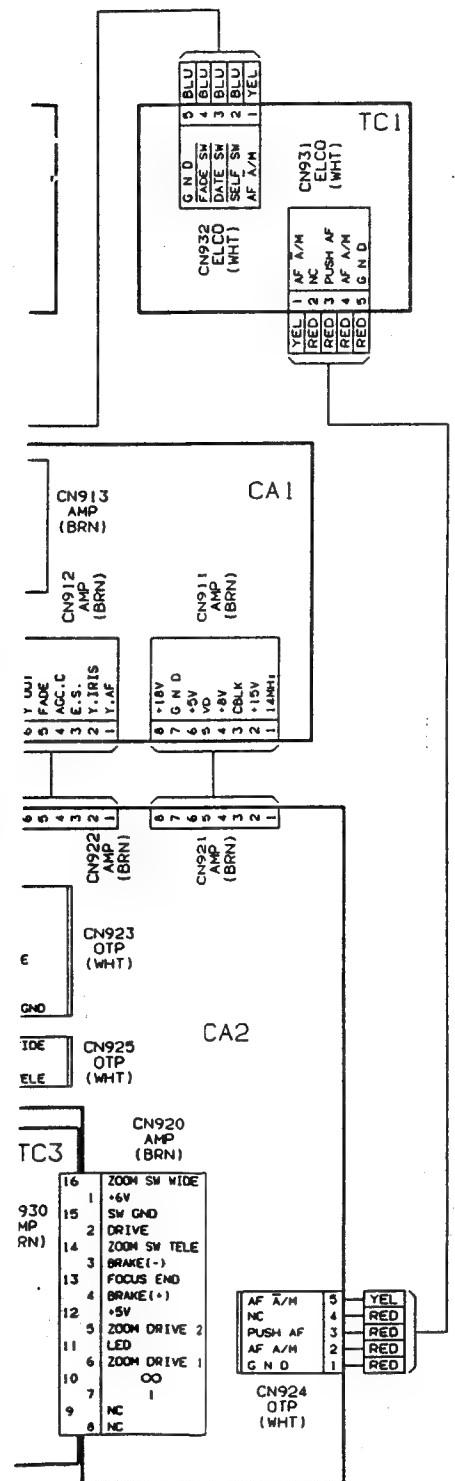
*a: REC MODE

SEMICONDUCTORS

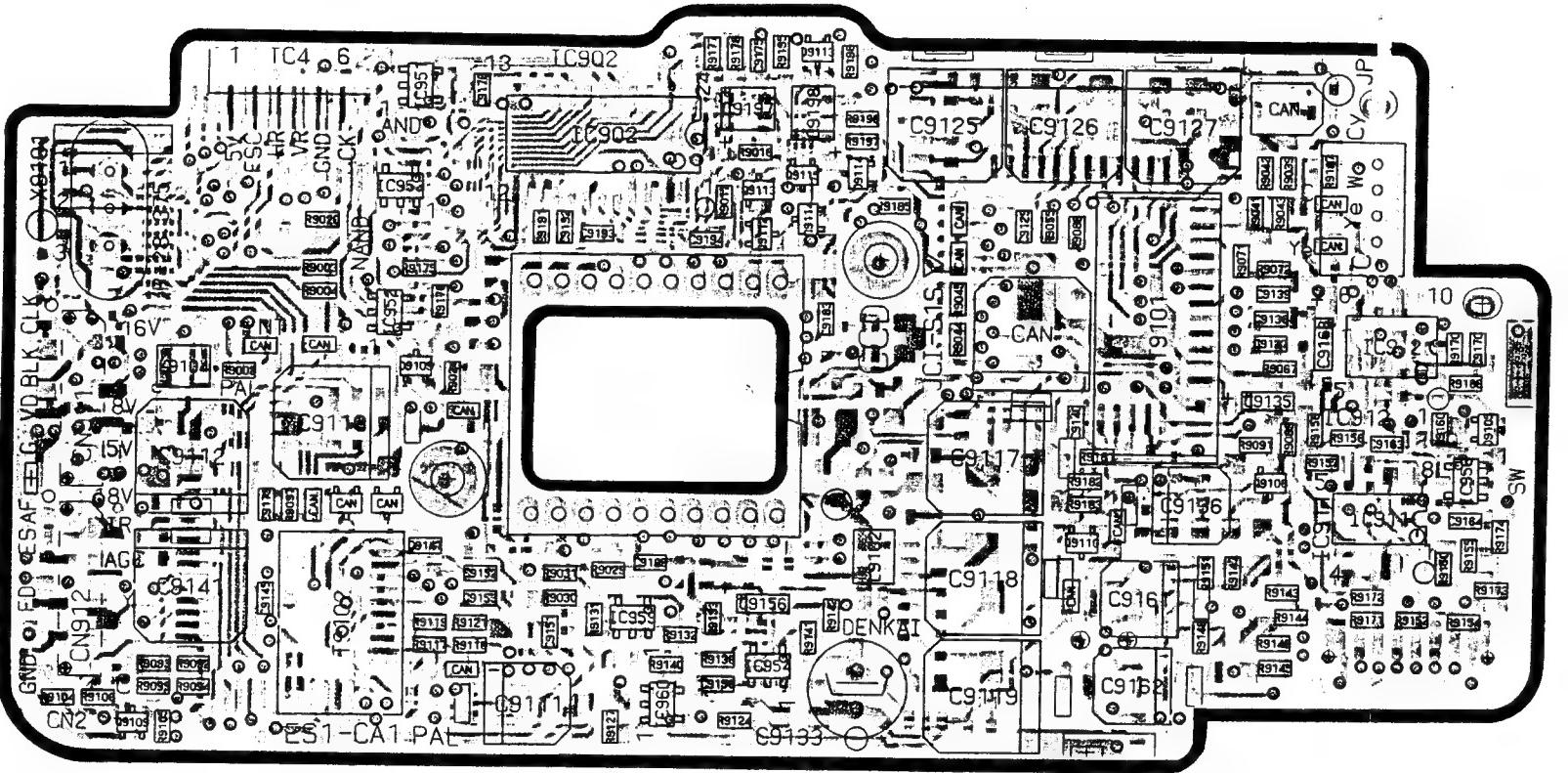
OVERALL WIRING



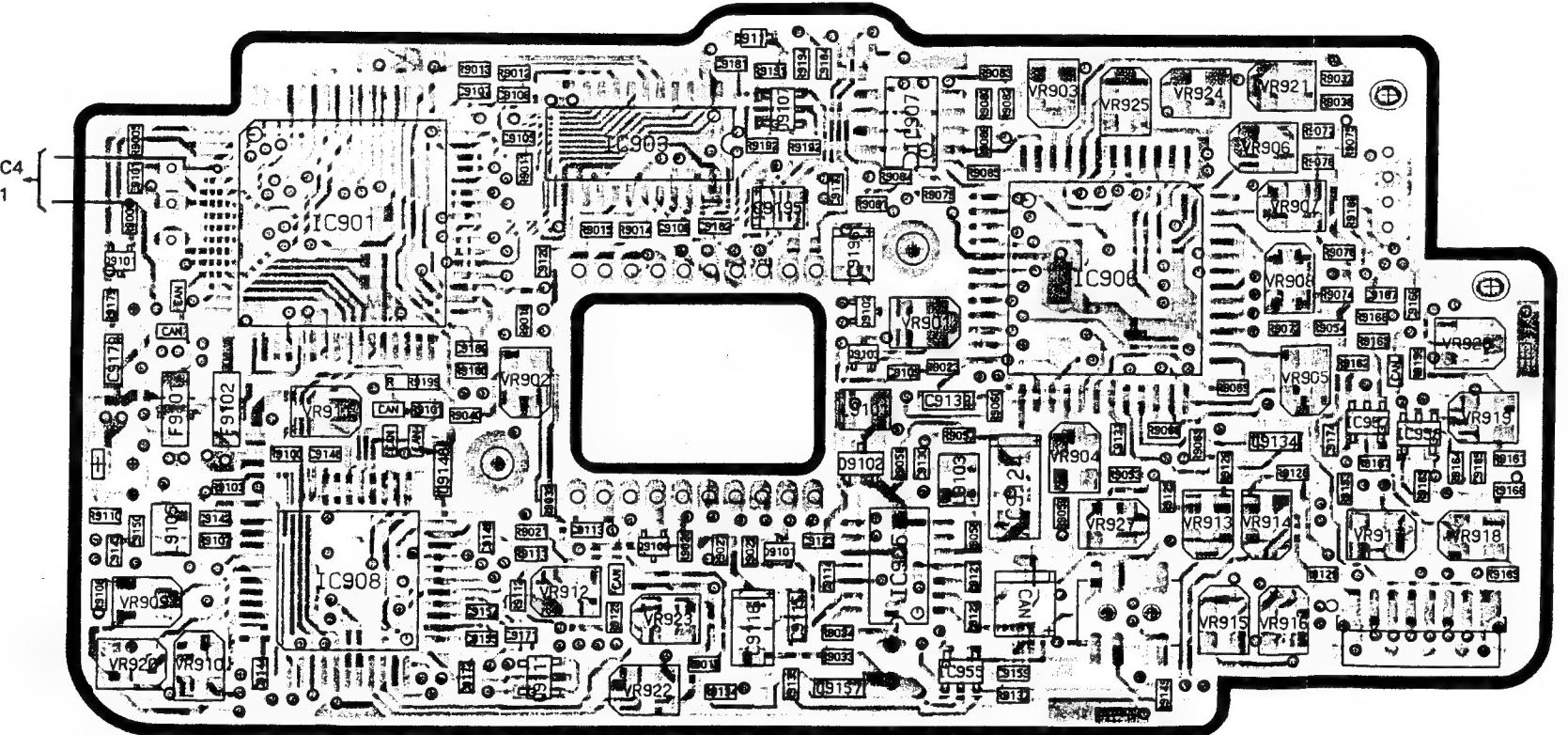
SEMICONDUCTORS



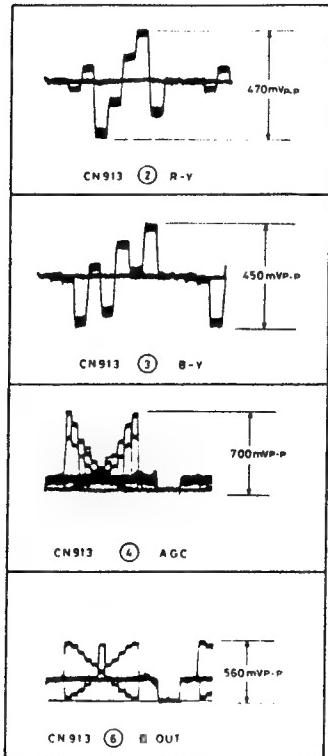
CA-1 BOARD SIDE A



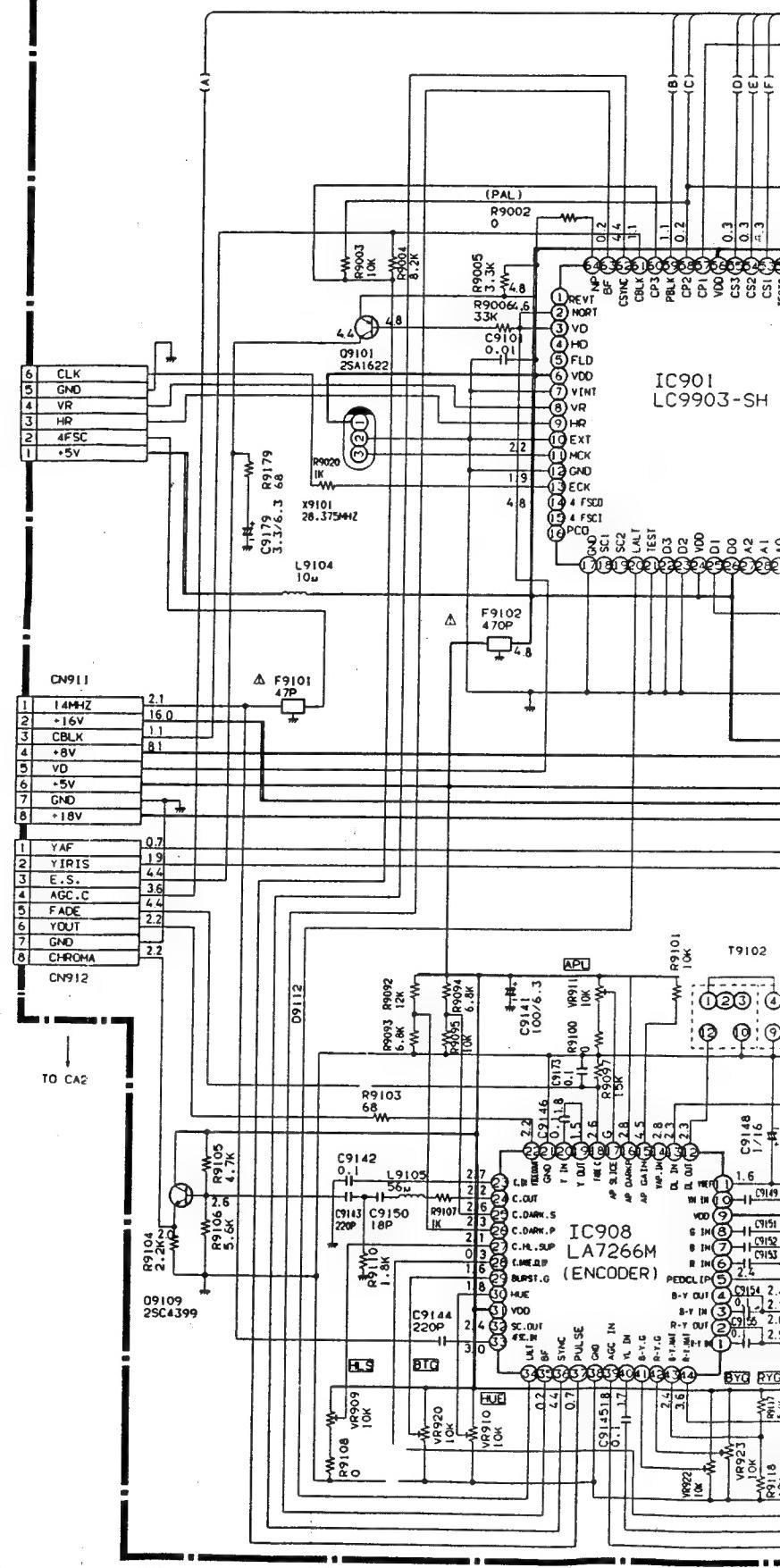
CA-1 BOARD SIDE B



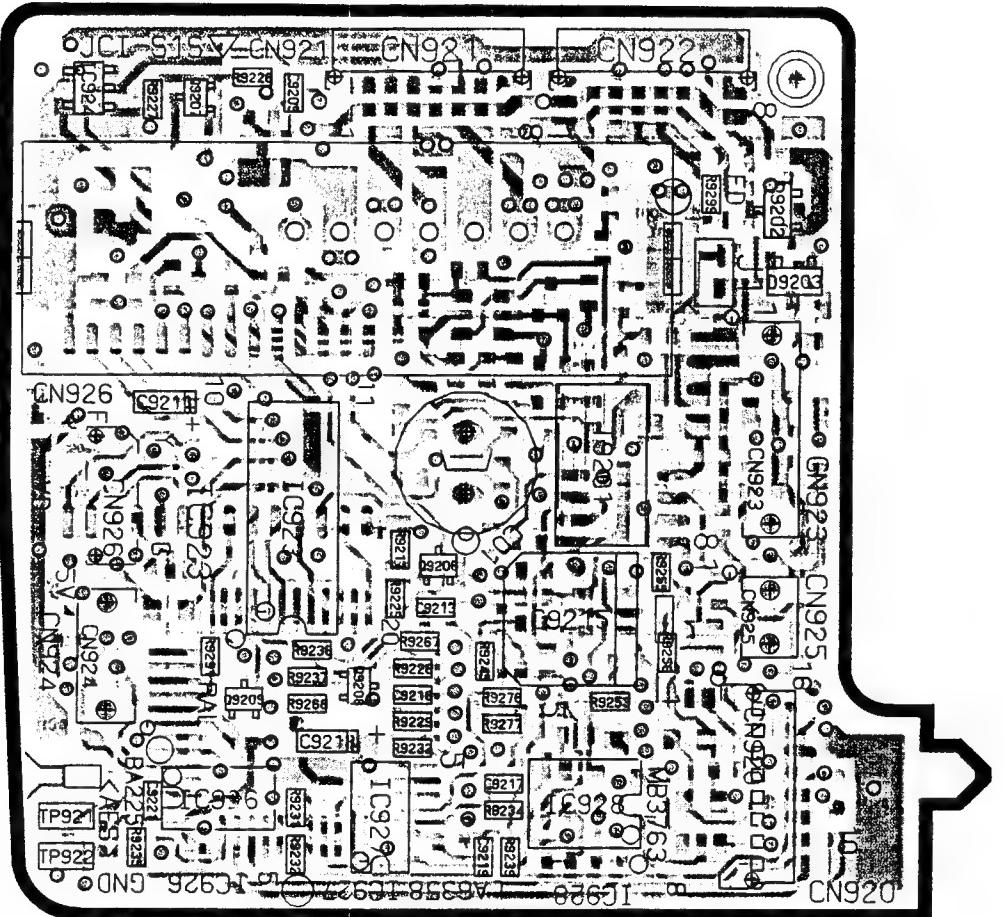
CA-1 BOARD (CAMERA)



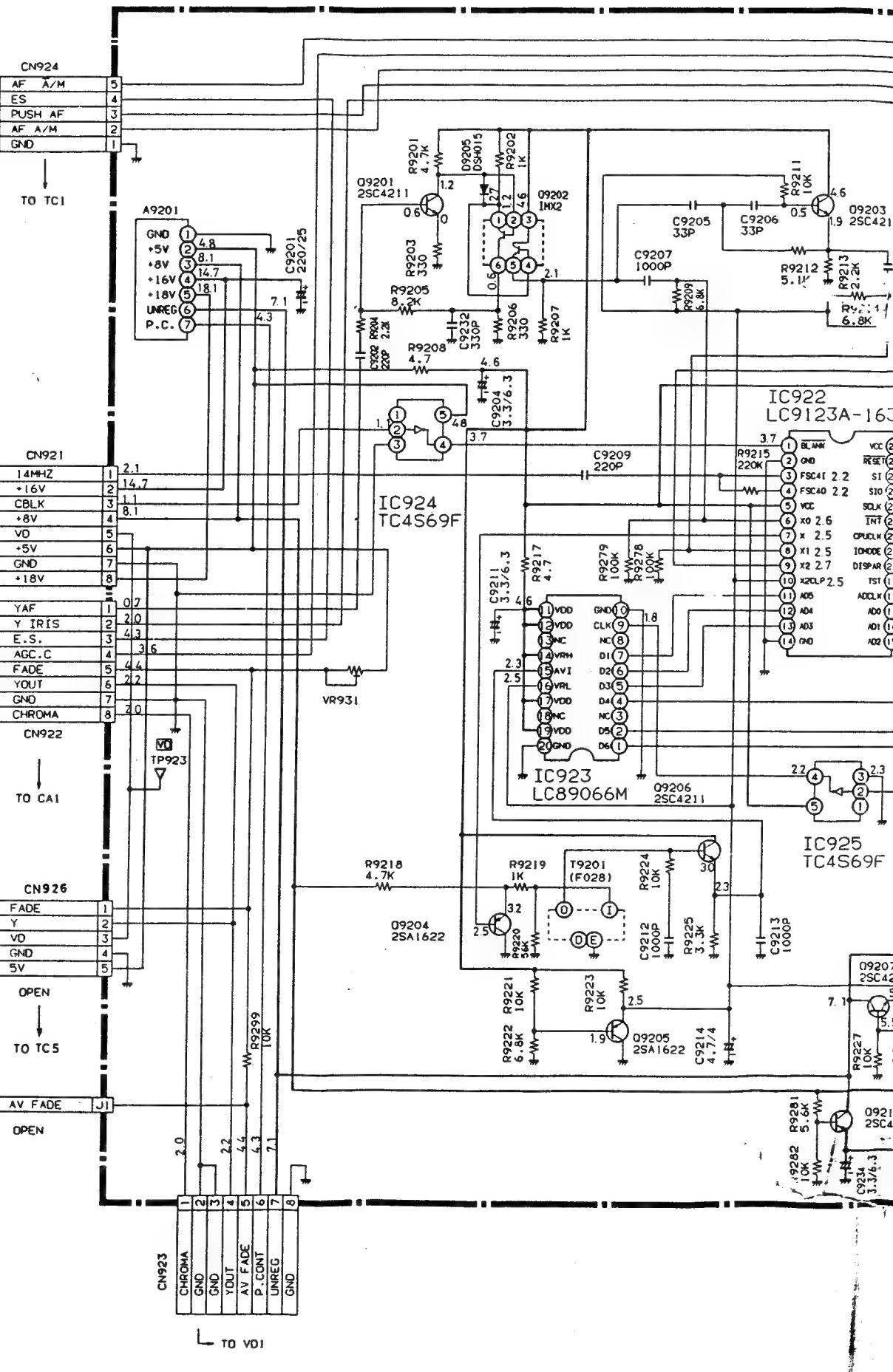
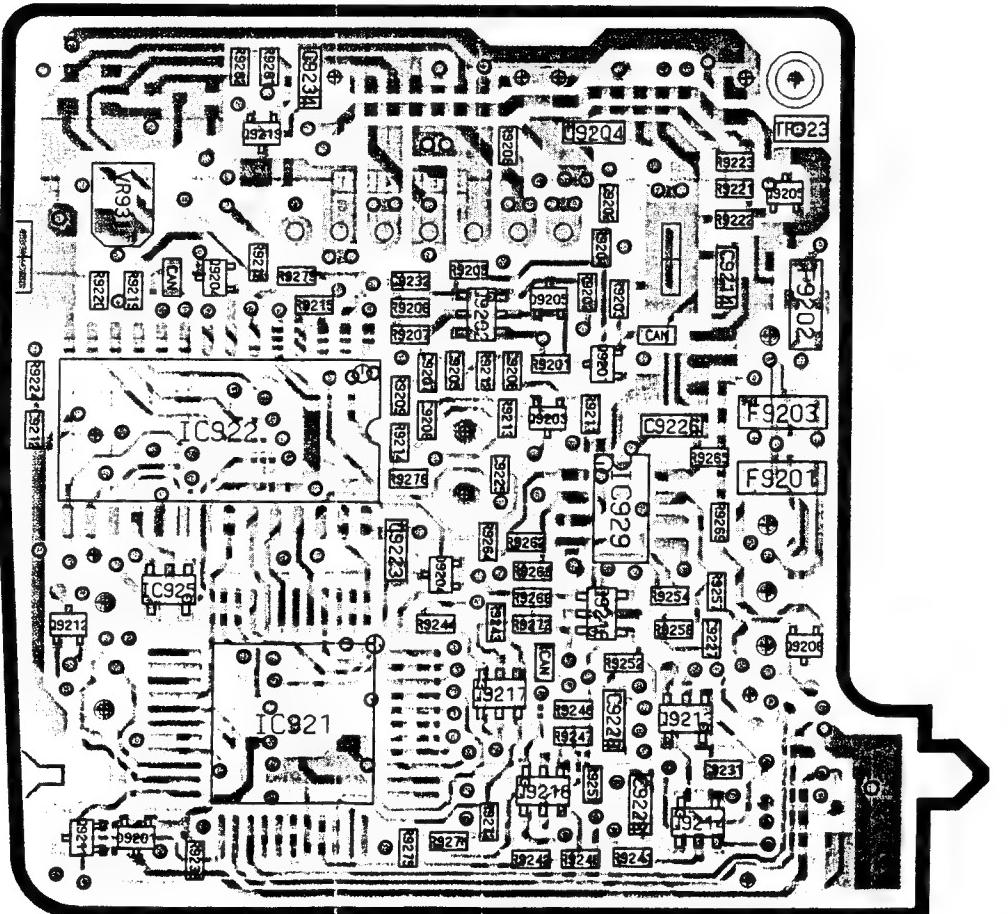
ES1 P/G



CA-2 BOARD SIDE A



CA-2 BOARD SIDE B



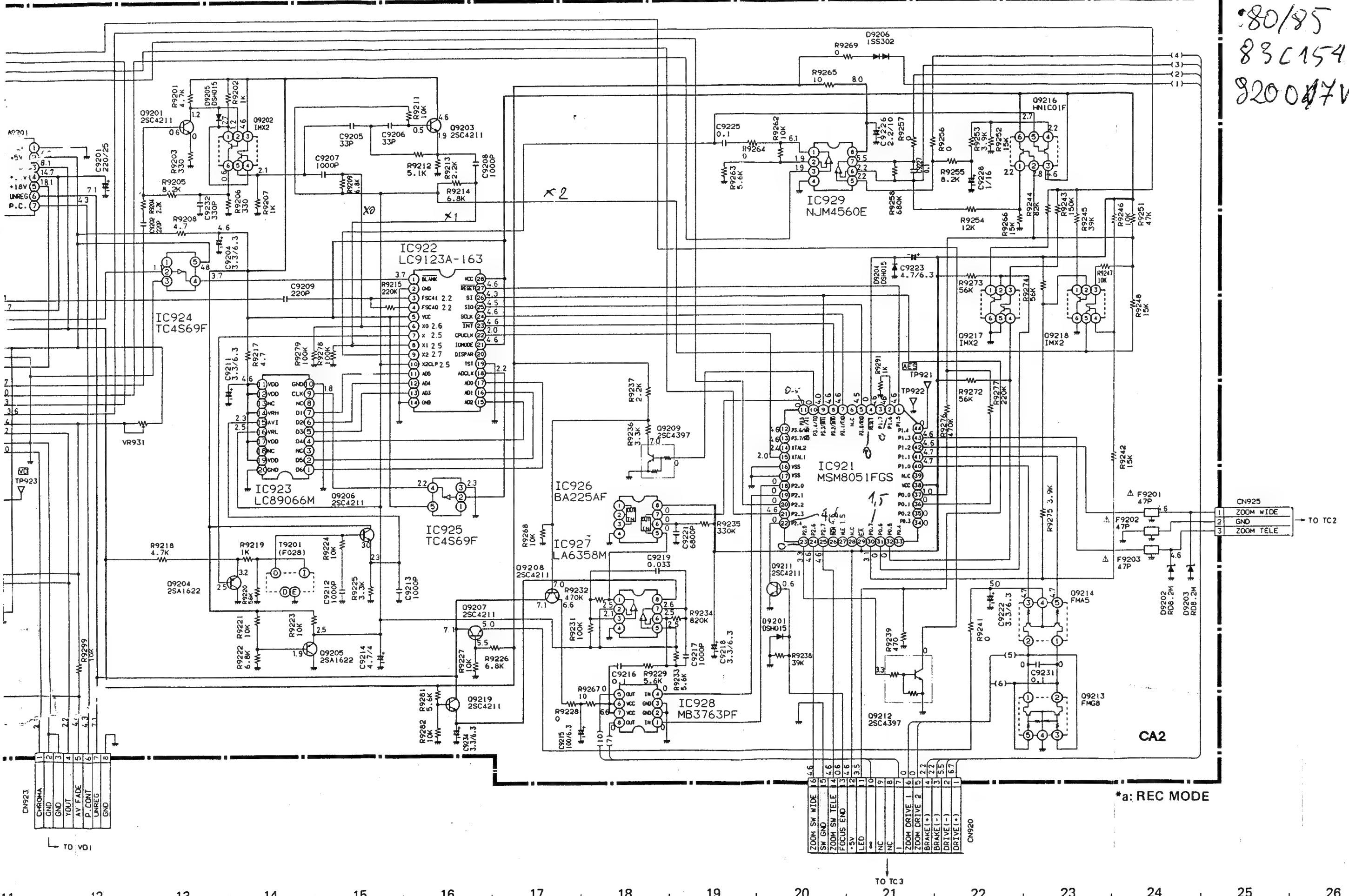
CA-2 CIRCUIT

061

80/85

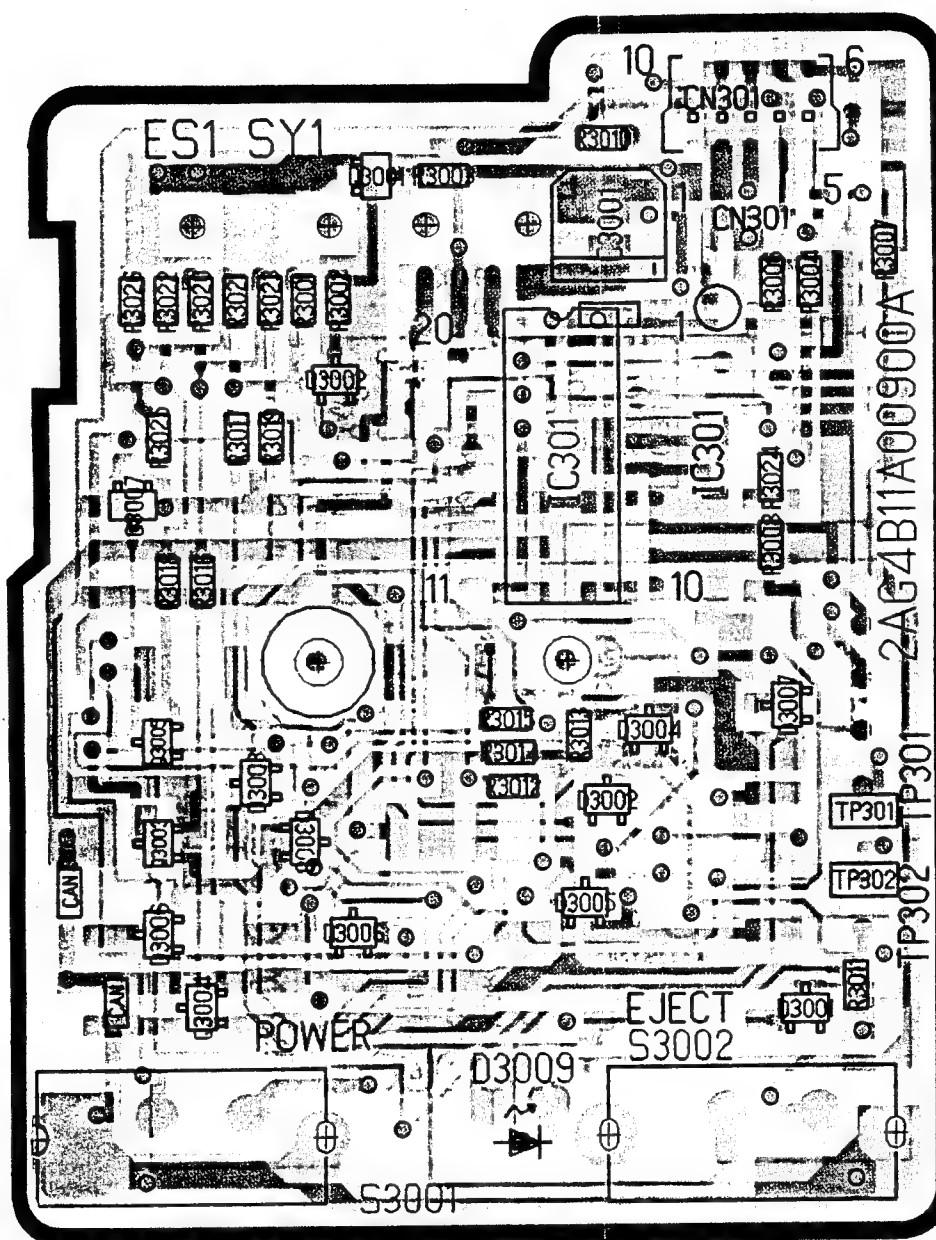
83C154U618

8200A7V1

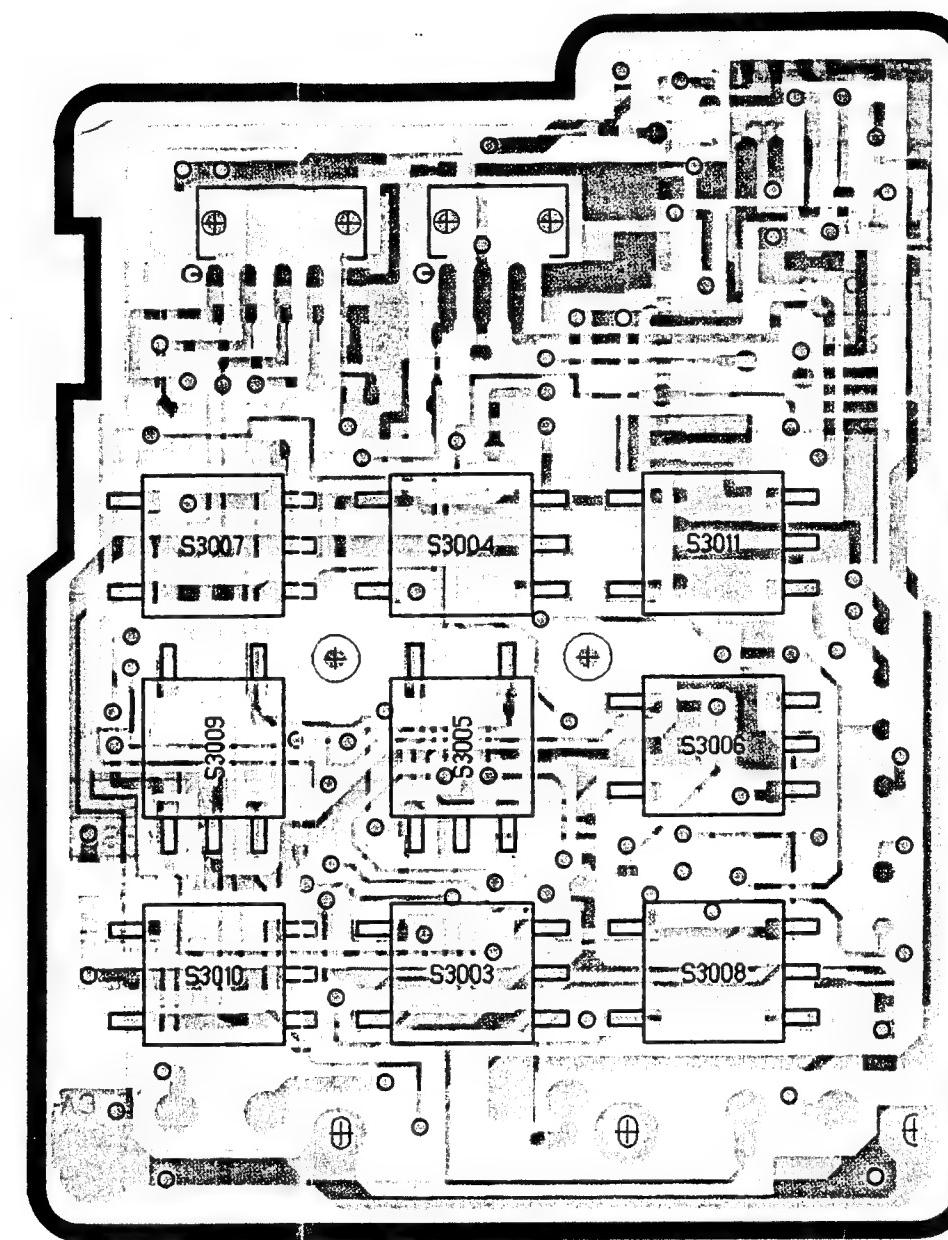


K
C
I
G
F
E
D
C
B
A

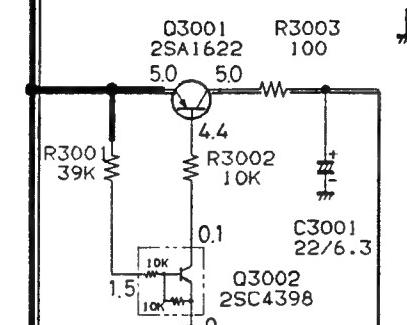
SY-1 BOARD SIDE A



SY-1 BOARD SIDE B

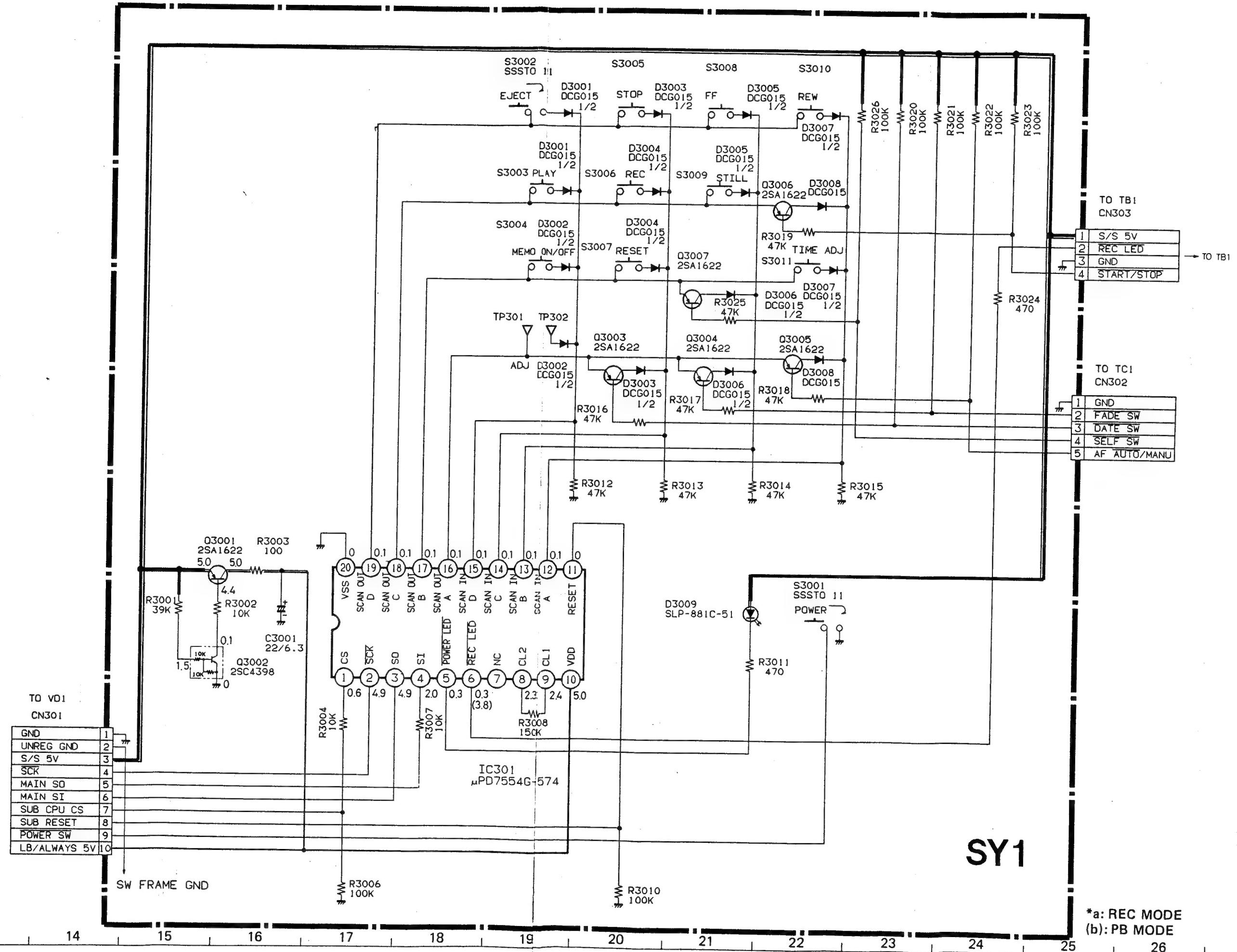


TO VD1	
CN301	
GND	1
UNREG GND	2
S/S 5V	3
SCK	4
MAIN SO	5
MAIN SI	6
SUB CPU CS	7
SUB RESET	8
POWER SW	9
LB/ALWAYS 5V	10

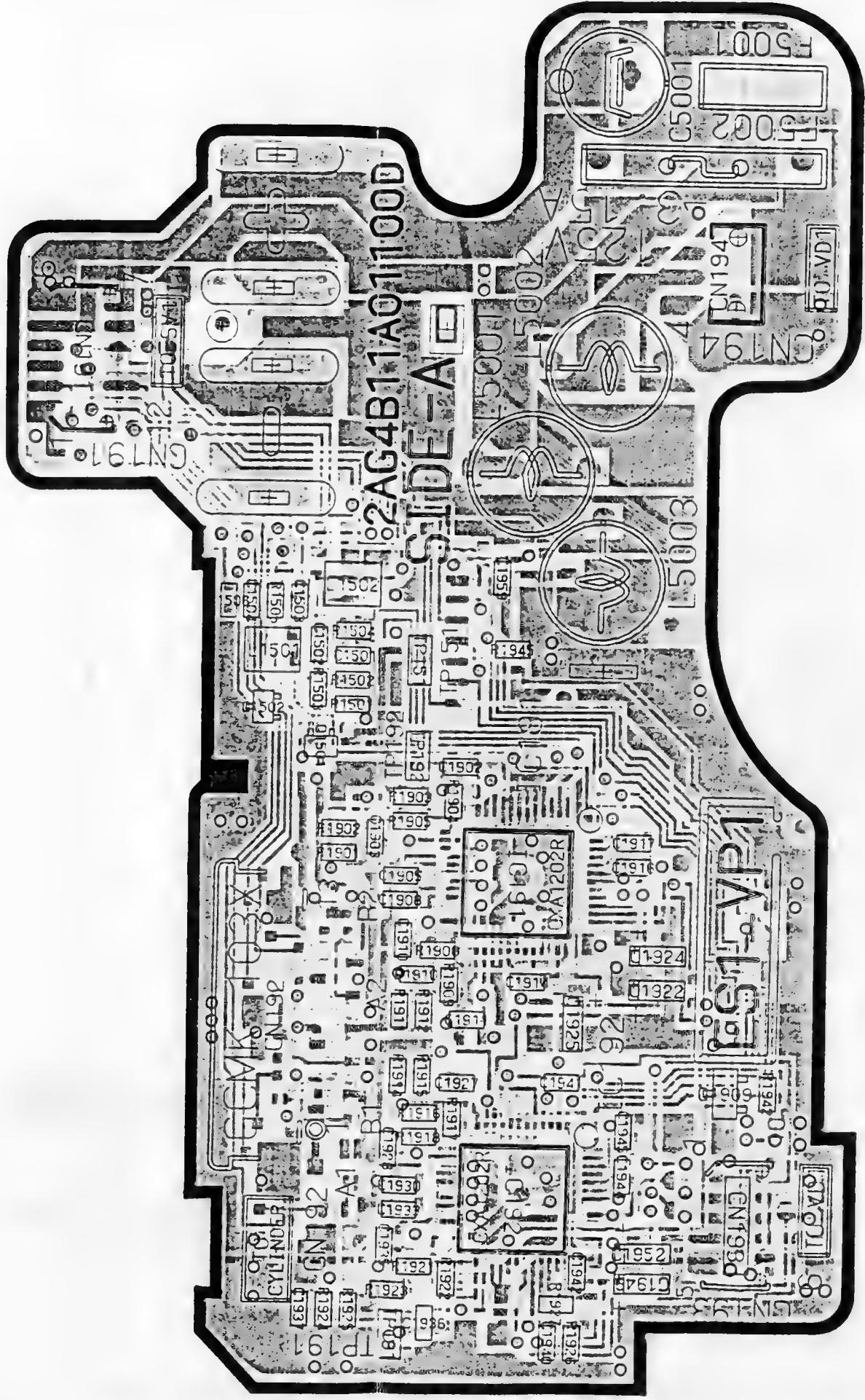


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

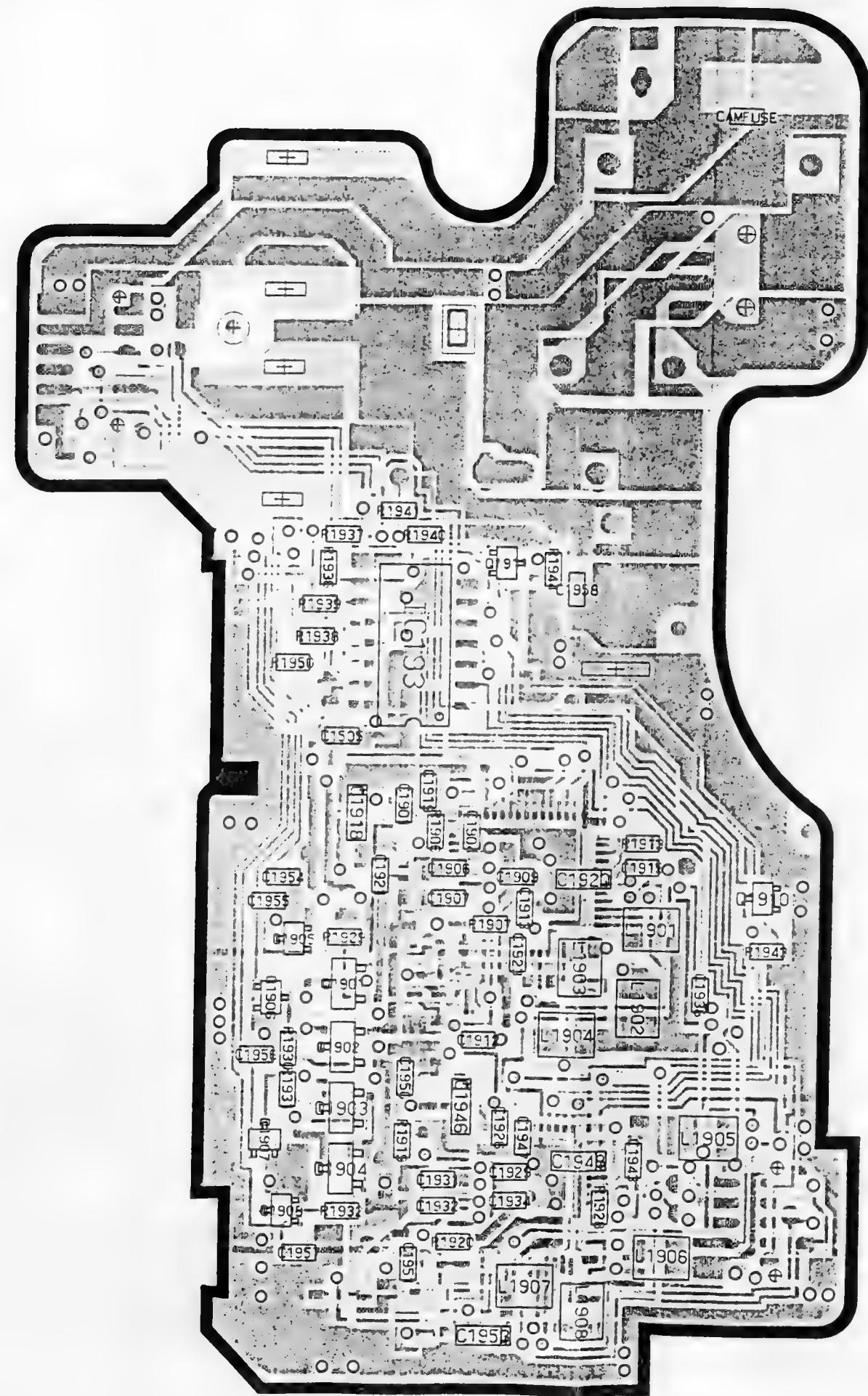
SY-1 CIRCUIT



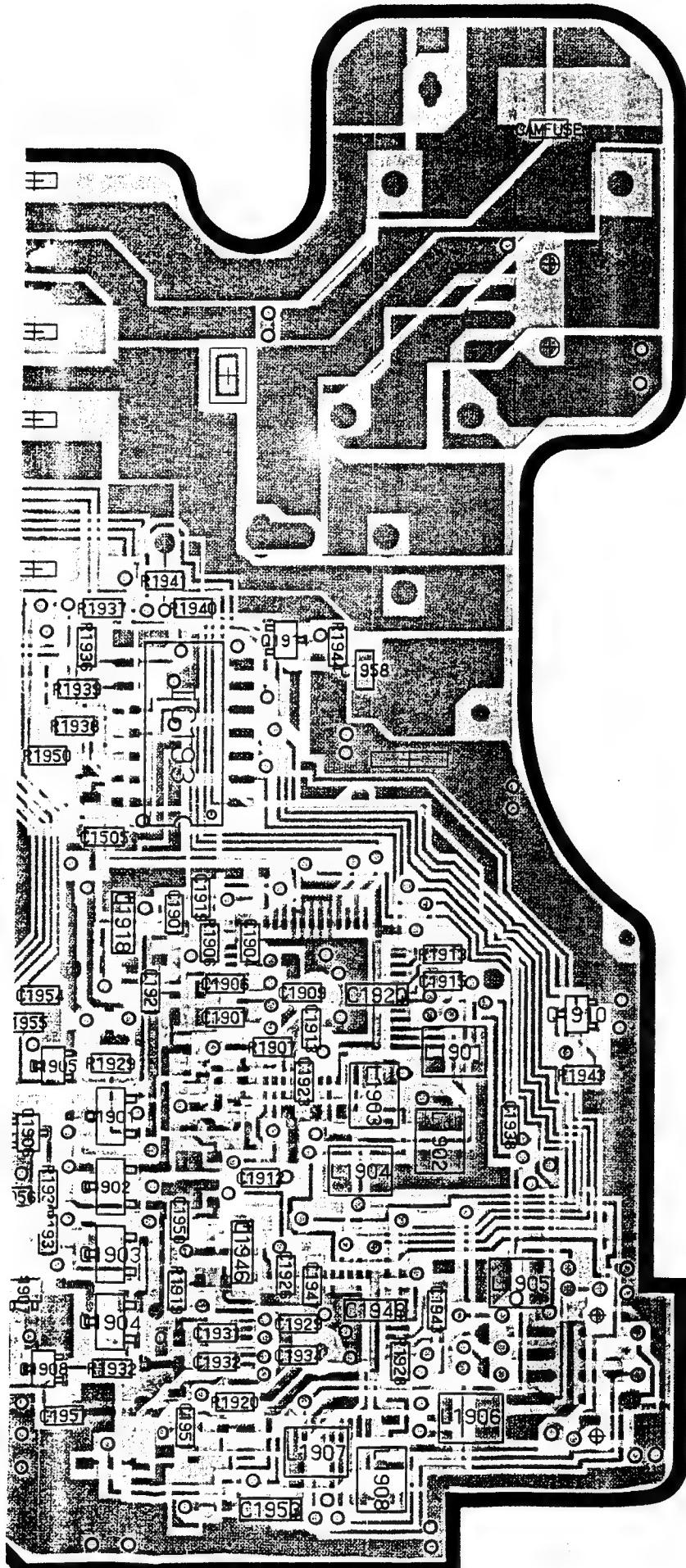
VP-1 BOARD SIDE A



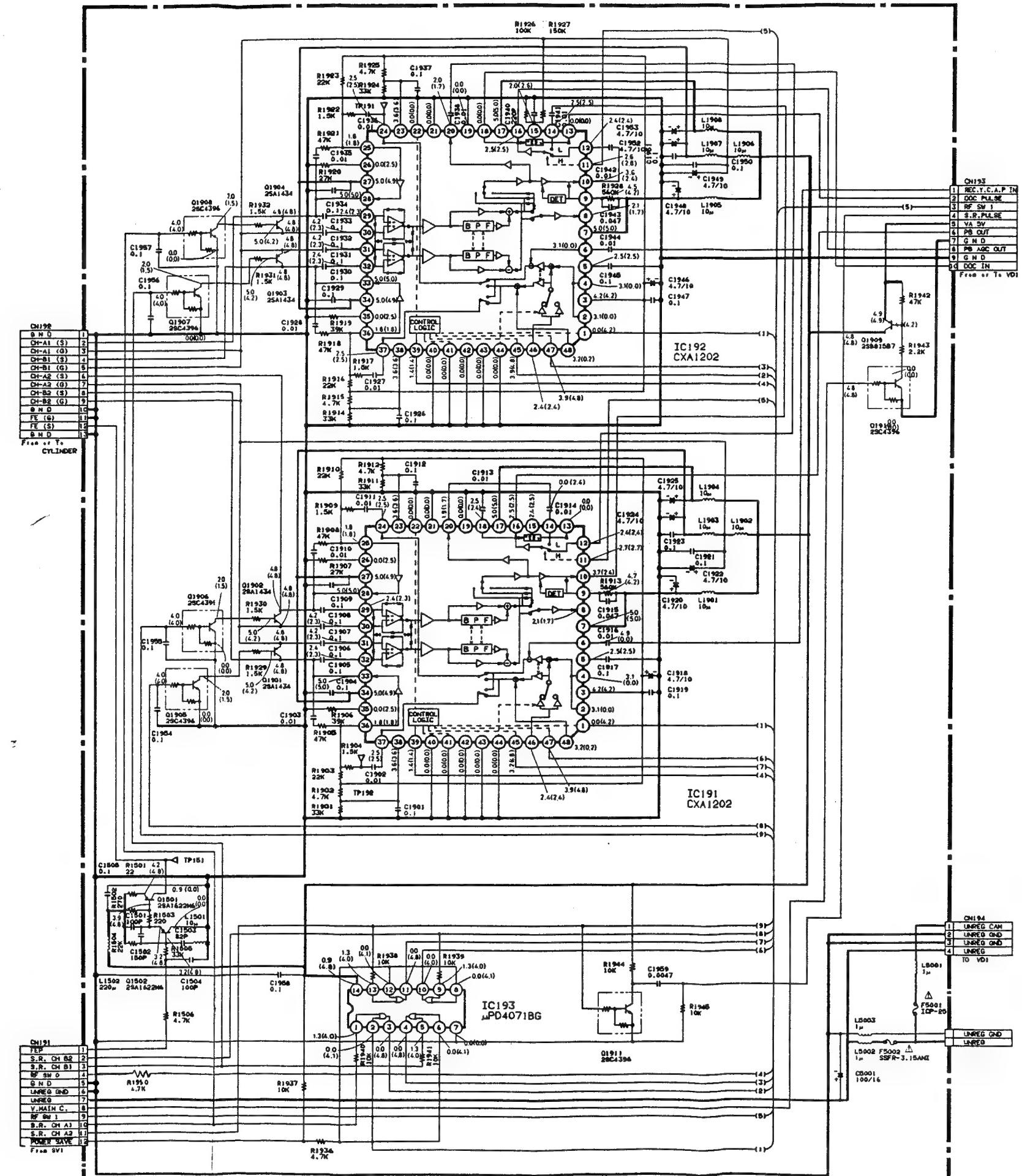
VP-1 BOARD SIDE B



*a: REC MODE
(b): PB MODE
16

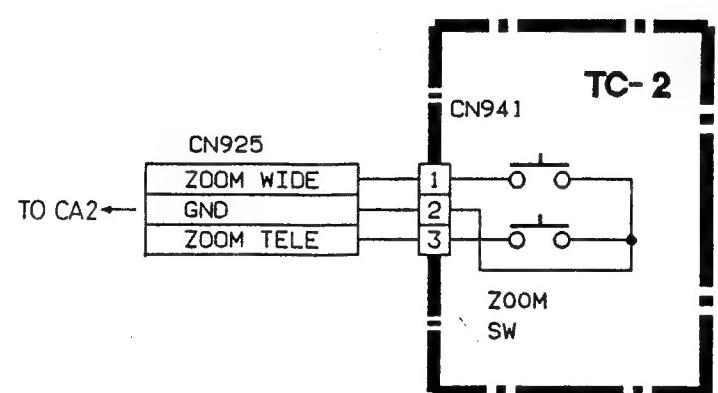


*a: REC MODE
(b): PB MODE



CUIT

TC-2 CIRCUIT

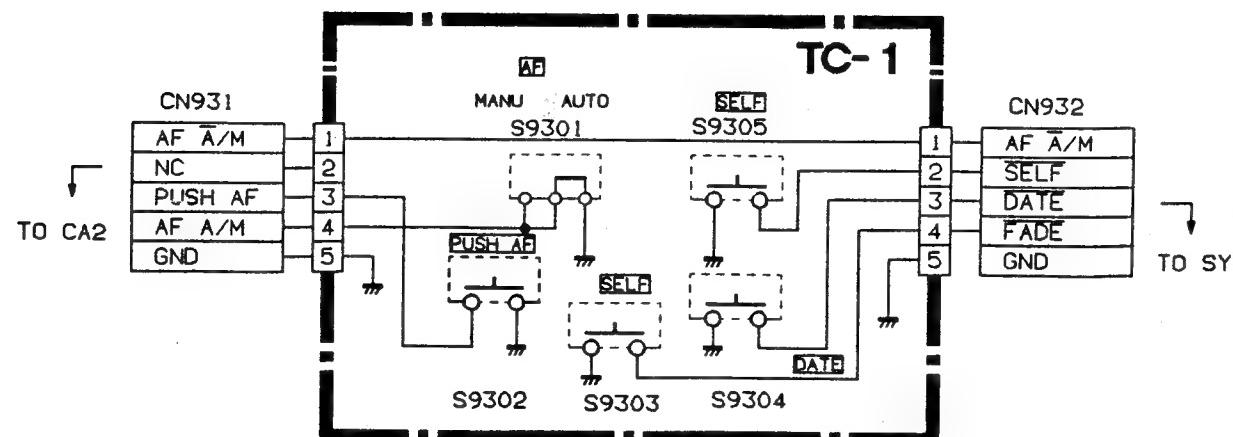


16	ZOOM SW WIDE
15	SW GND
14	ZOOM SW TELE
13	FOCUS END
12	+5V
11	LED
10	∞
9	NC
8	NC
7	1
6	ZOOM DRIVE 1
5	ZOOM DRIVE 2
4	BRAKE (+)
3	BRAKE (-)
2	DRIVE (-)
1	DRIVE (+)

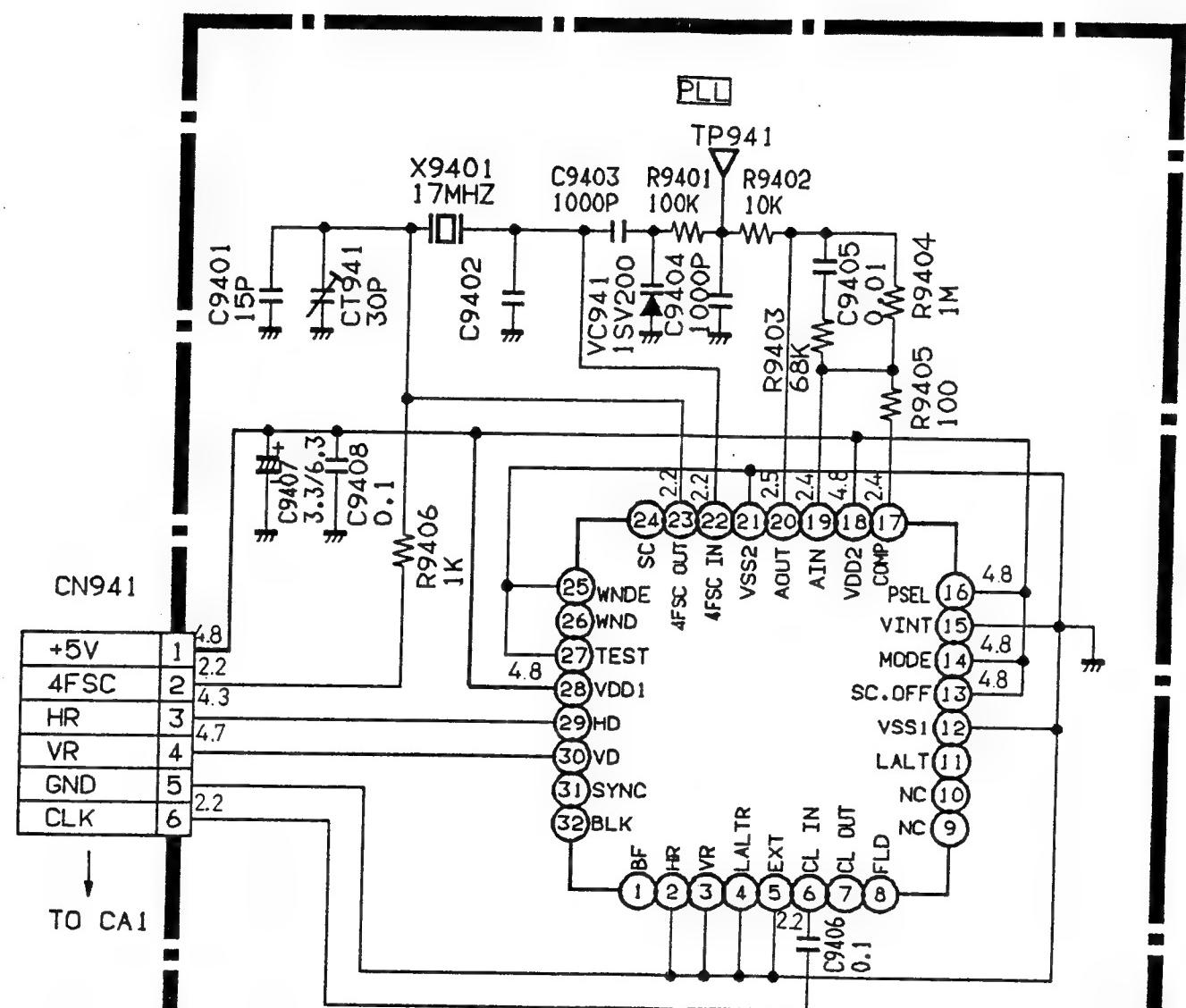
CN920

BOARD SIDE B

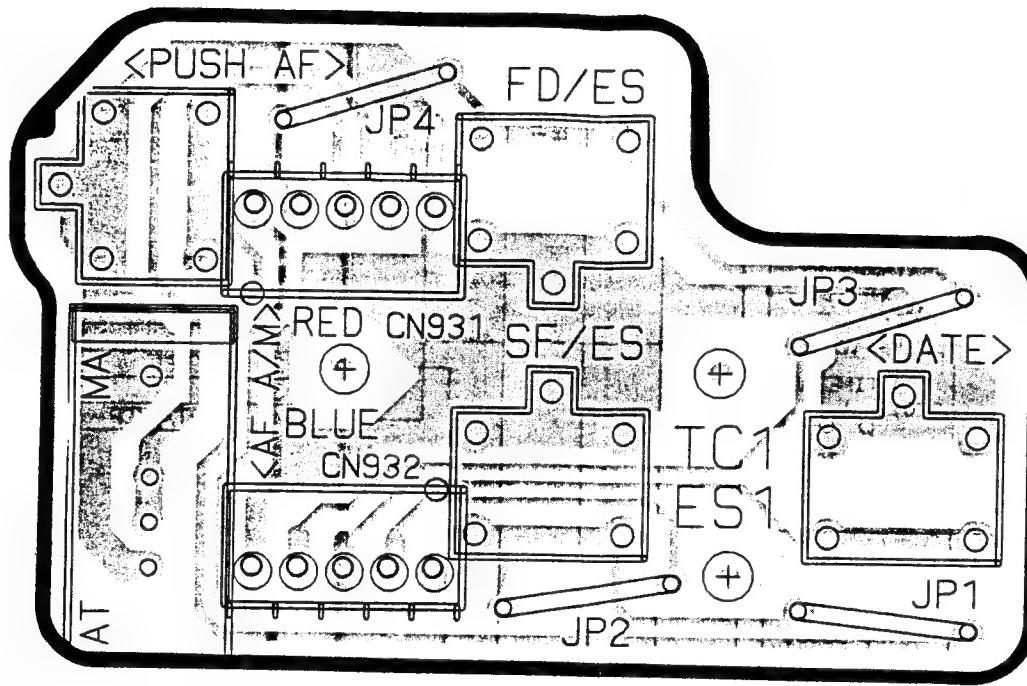
TC-1 CIRCUIT



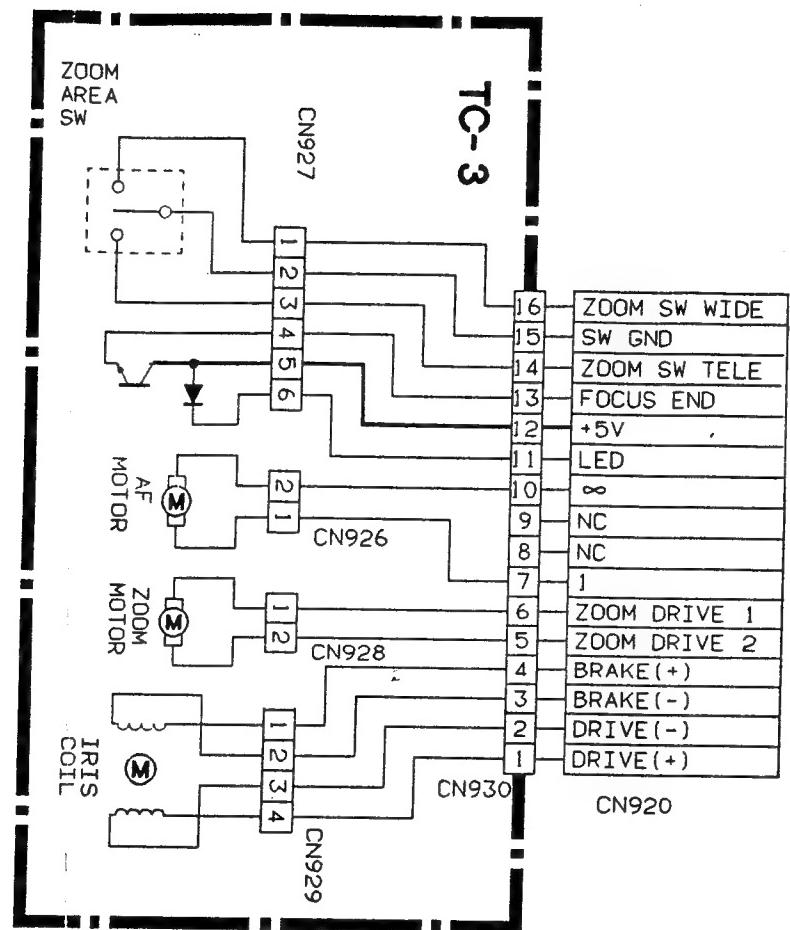
TC-4 CIRCUIT



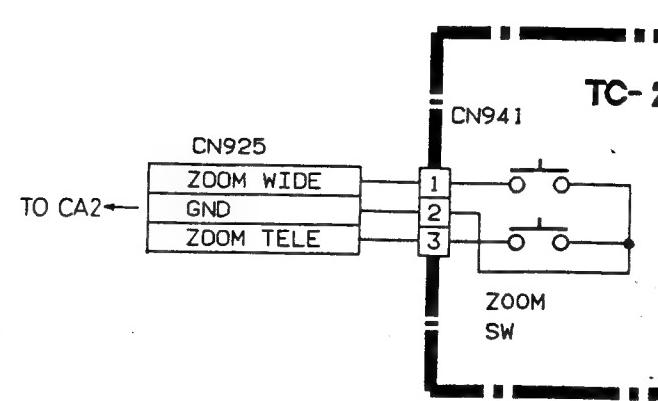
TC-1 BOARD



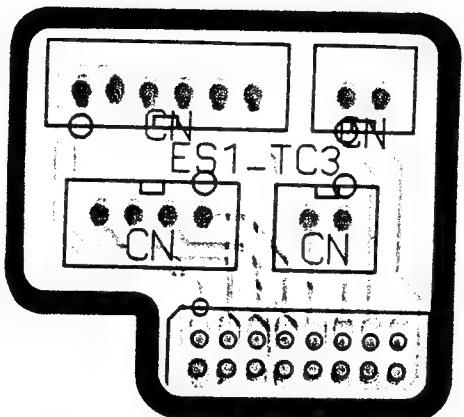
TC-3 CIRCUIT



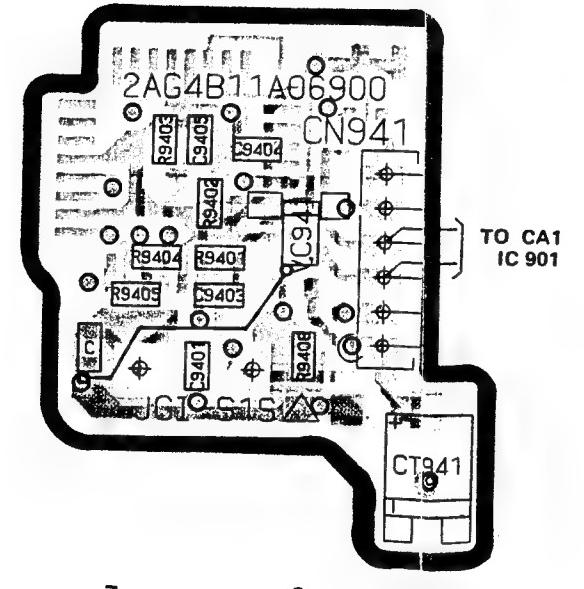
TC-2 CIRCUIT



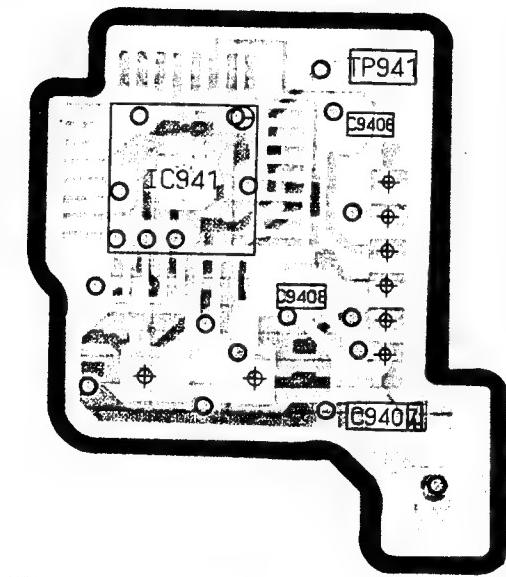
TC-3 BOARD



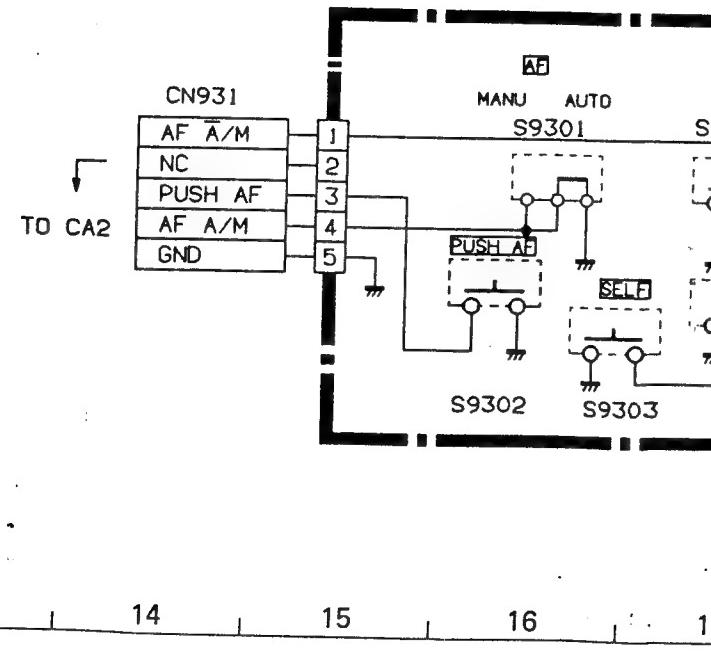
TC-4 BOARD SIDE A



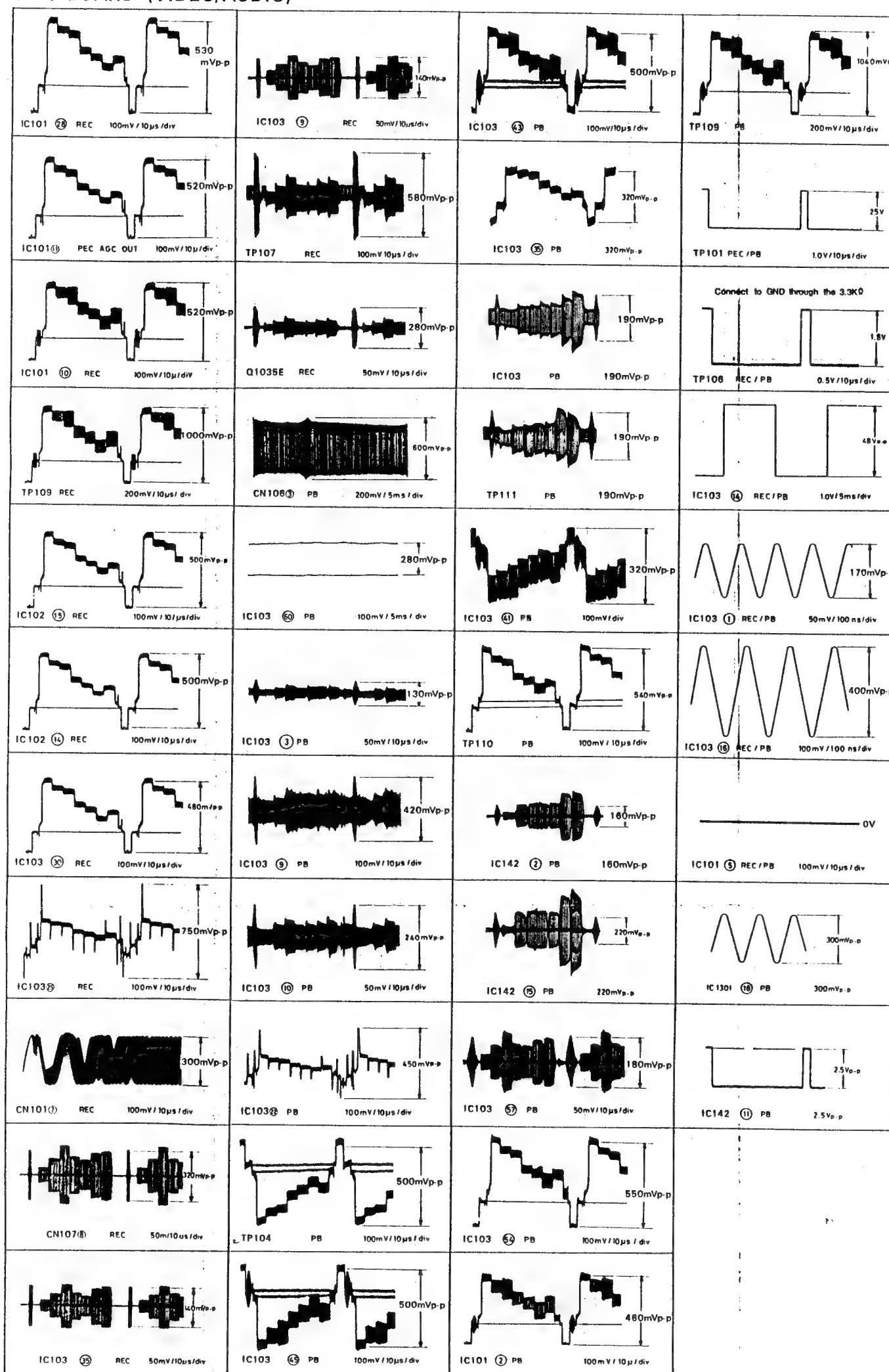
TC-4 BOARD SIDE B



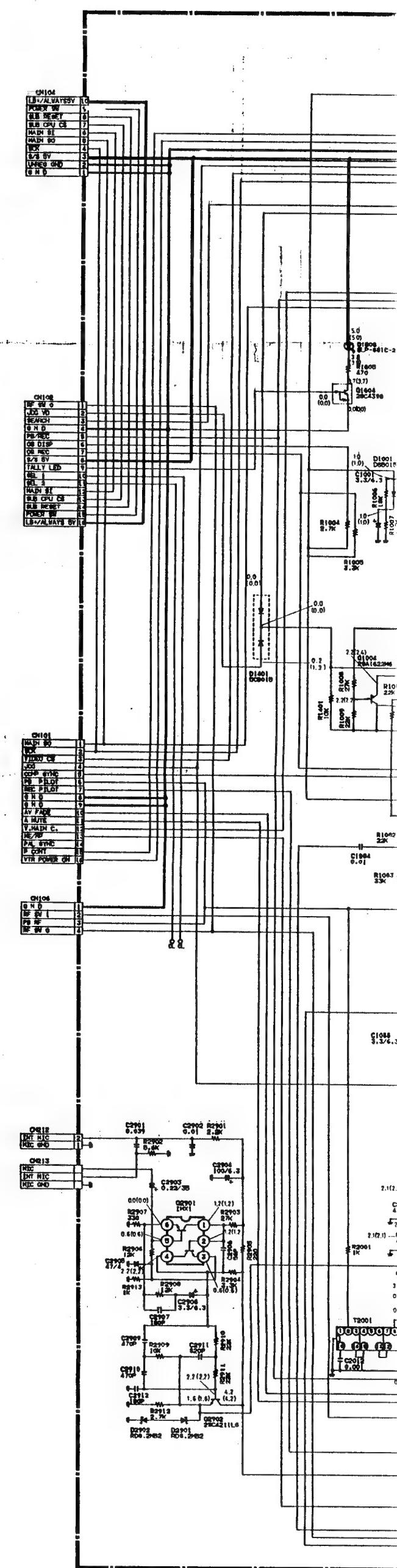
TC-1 CIRCUIT



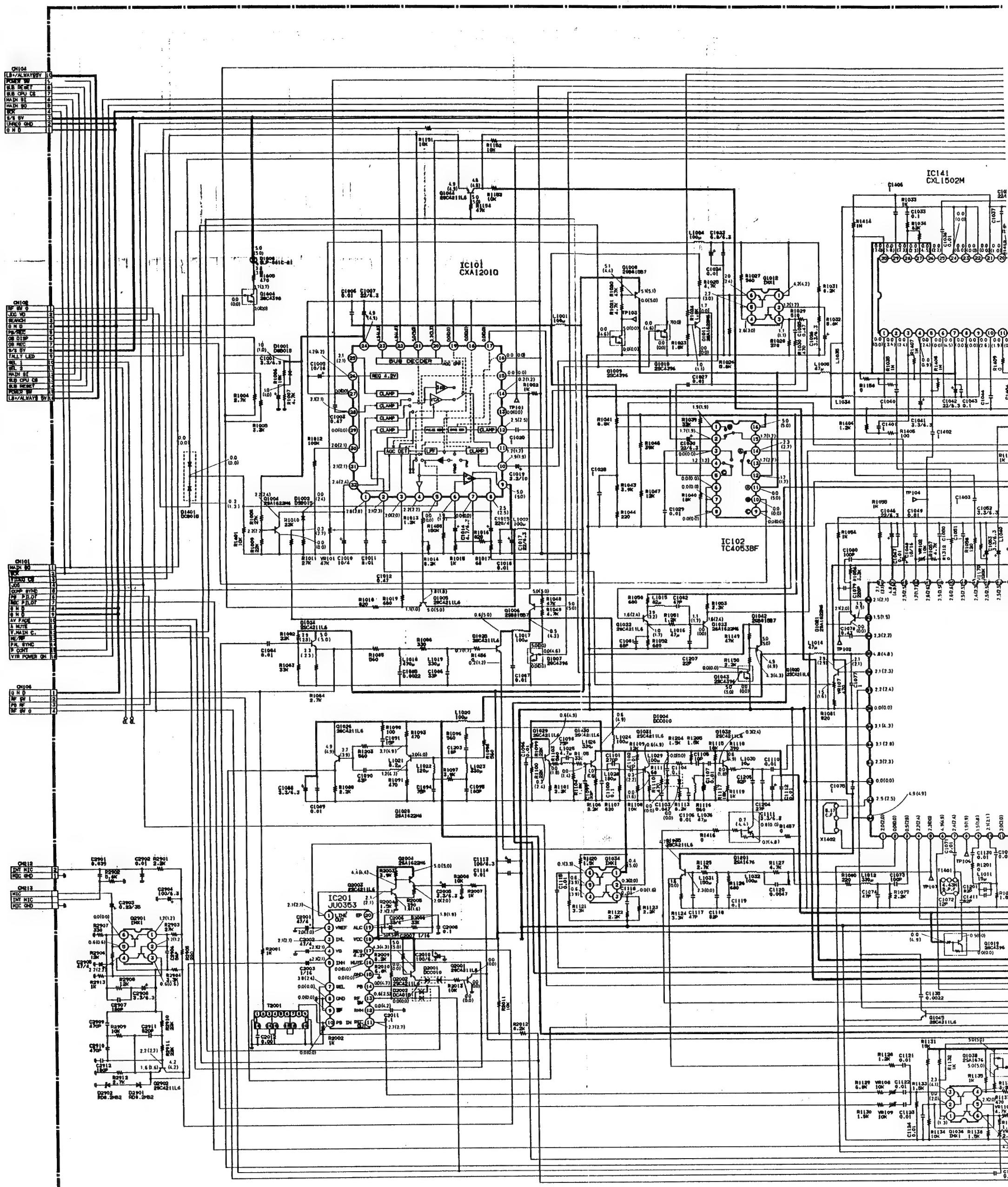
VD-1 BOARD (VIDEO/AUDIO)



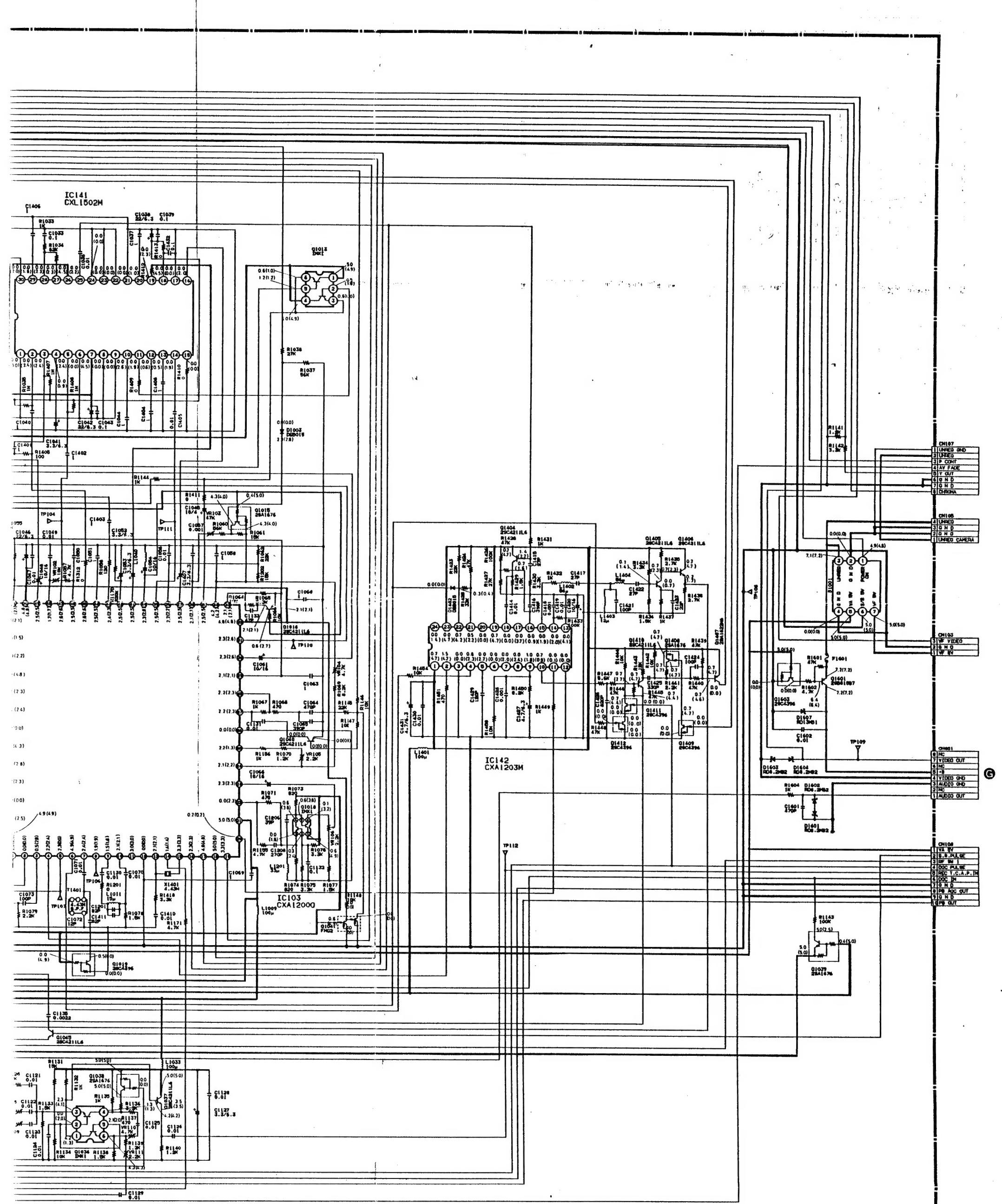
*a: REC MODE
(b): PB MODE



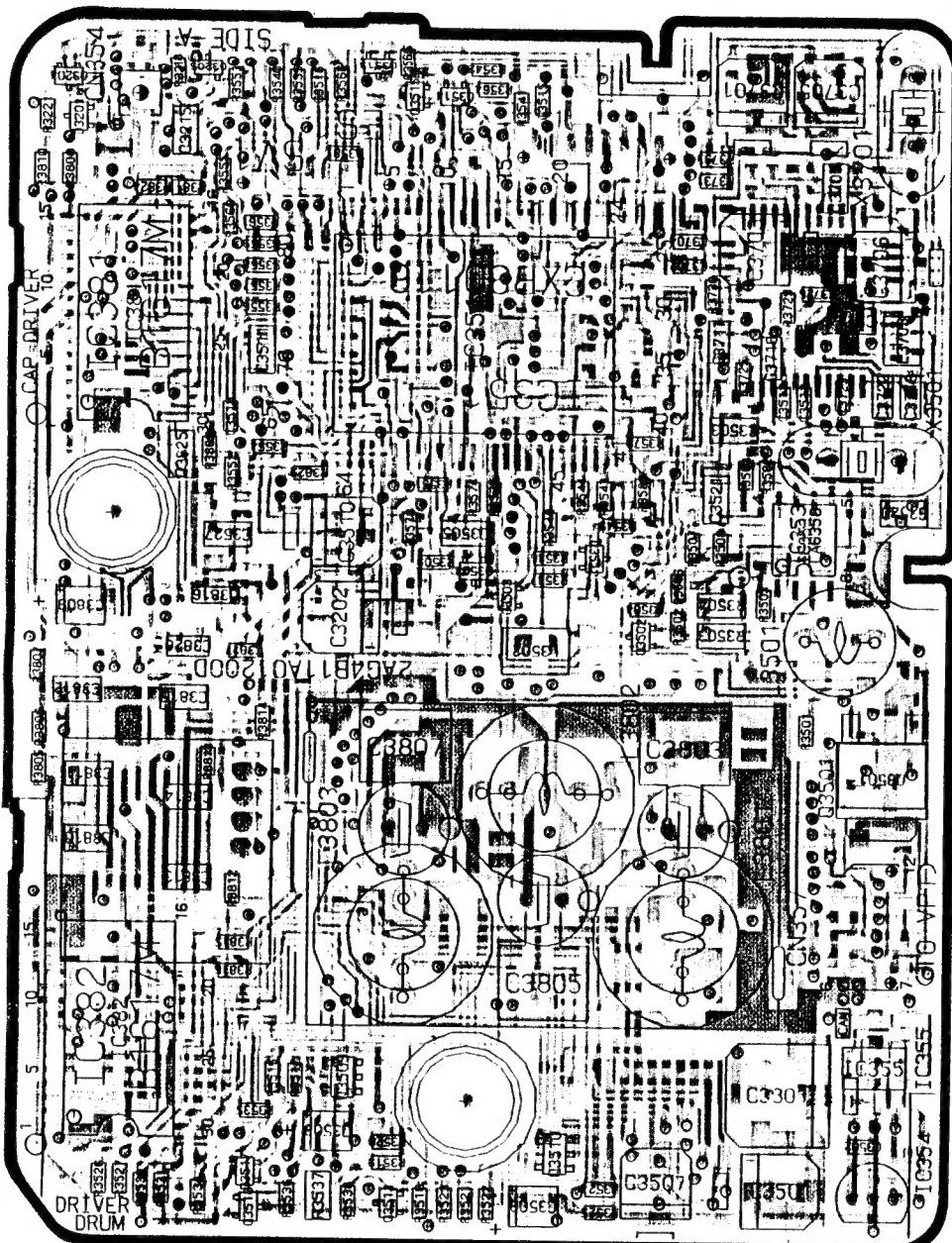
VD-1 CIRCUIT



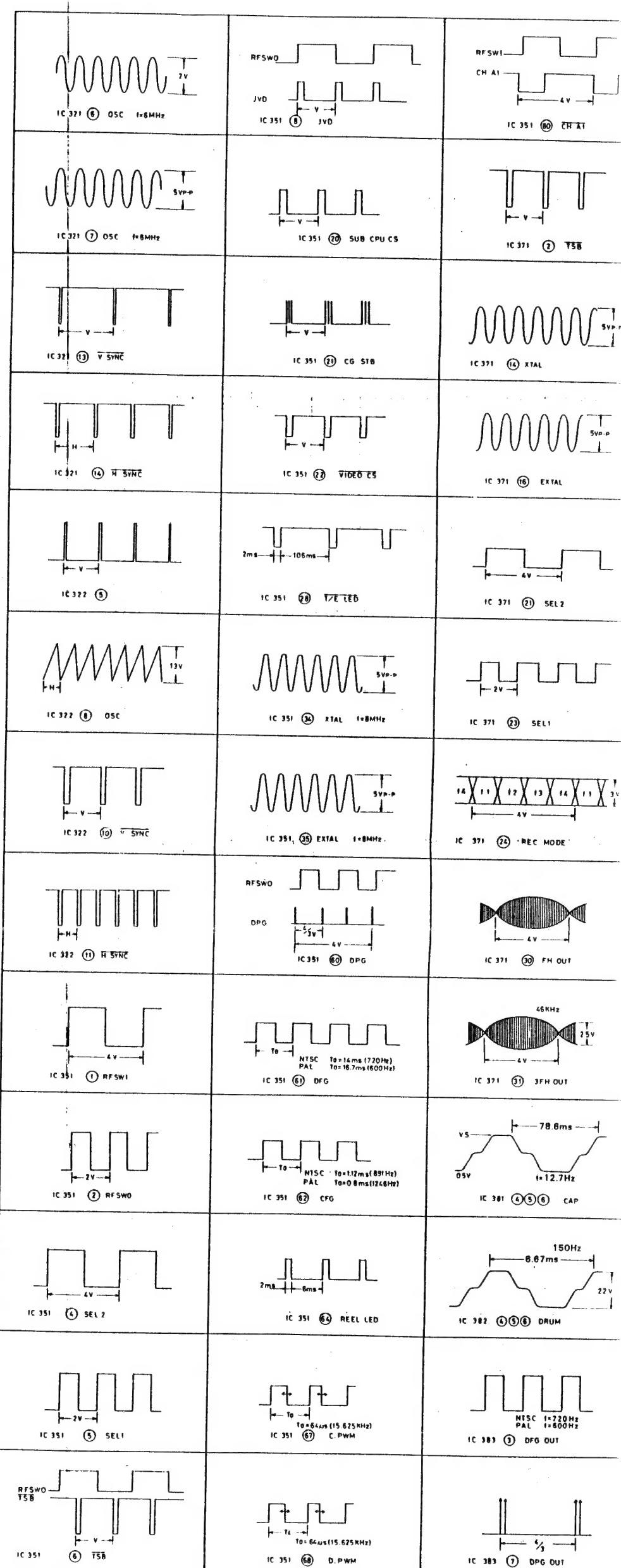
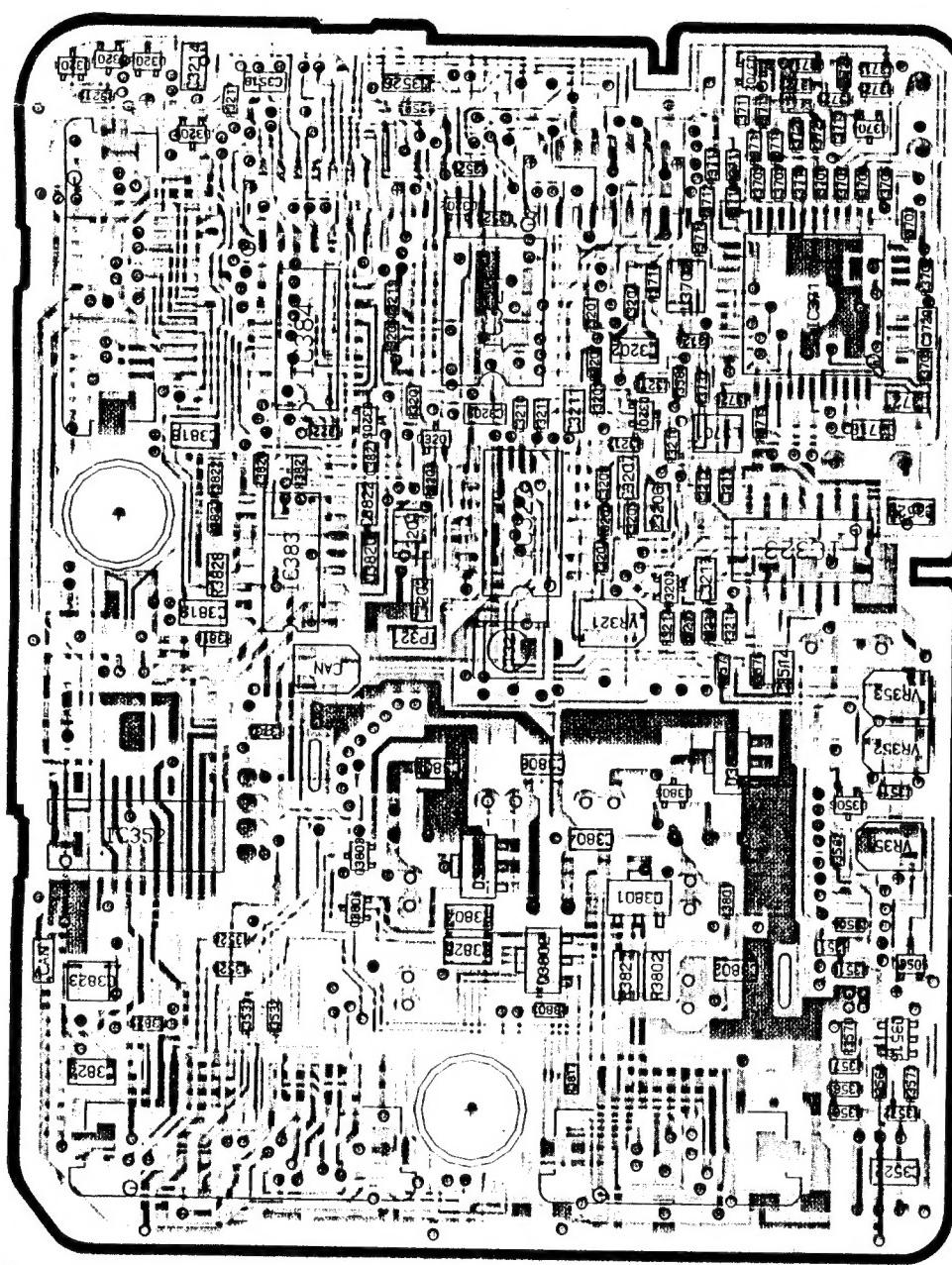
VD-1 CIRCUIT



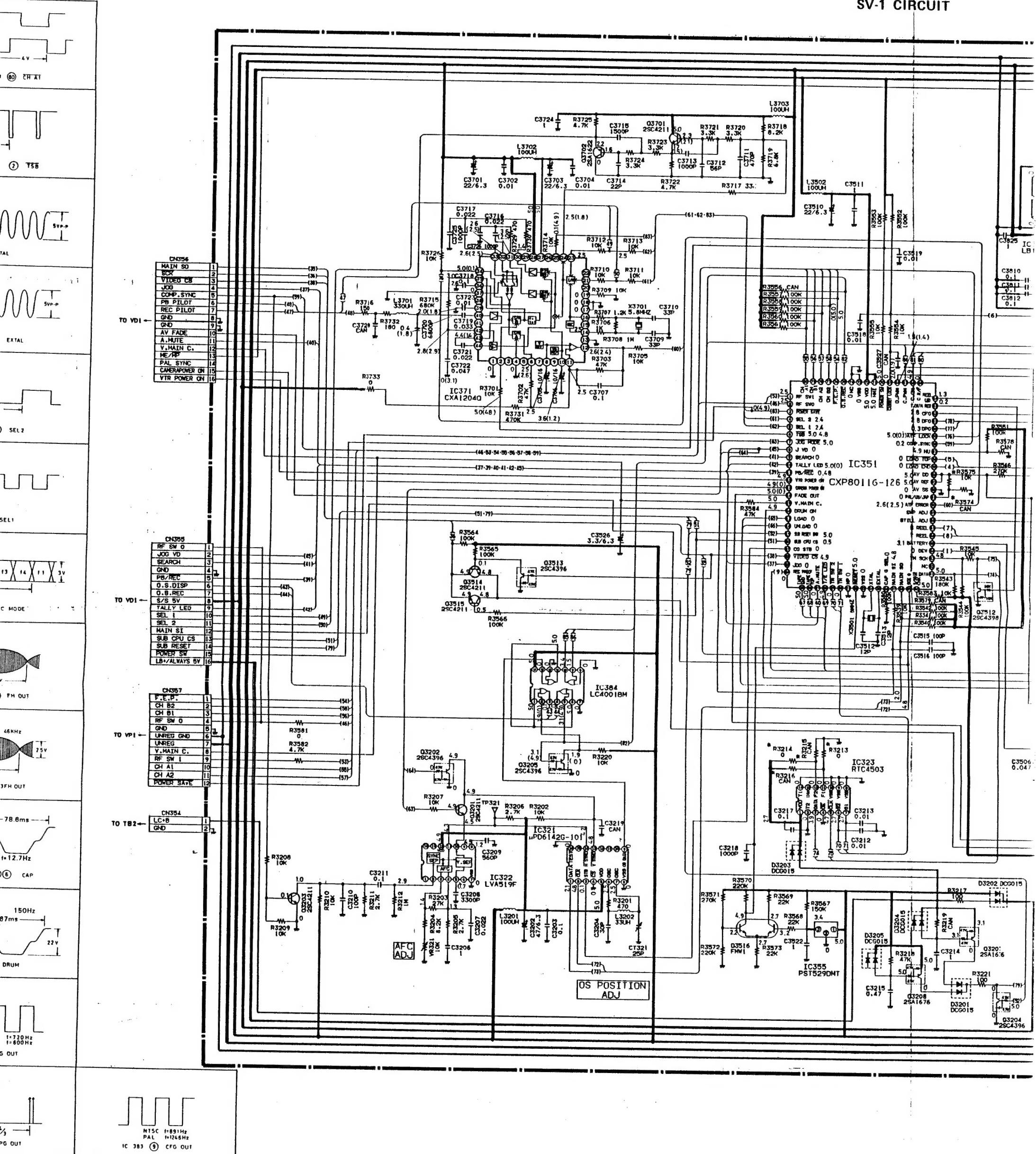
SV-1 BOARD SIDE A



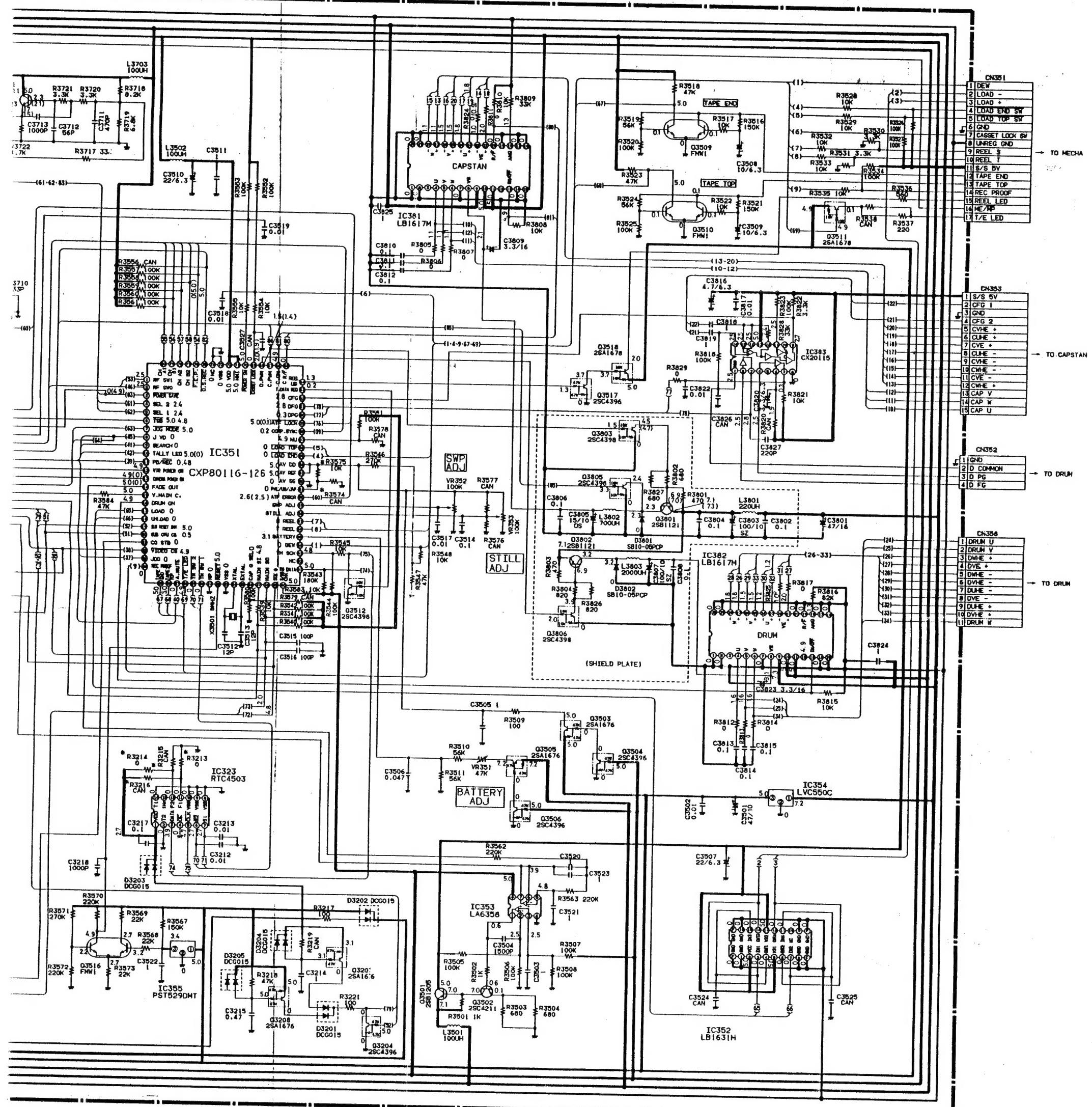
SV-1 BOARD SIDE B



SV-1 CIRCUIT



SV-1 CIRCUIT



*a: REC MODE
(b): PB MODE